

1427

Alepes megalaspis (Bleeker)

Selar megalaspis Bleeker, Nat.  
Tijds. Ned. Indië, vol. 5, p. 502,  
1853 (type locality, Priaman, Sumatra);  
vol. 12, p. 214, 1856 (Lias); Act.  
Soc. Sci. Ind. Neerl., no. 9, vol. 3,  
p. 3, 1857-58 (Trussan, Sumatra).

Caranx megalaspis Fowler, Journ.  
Acad. Nat. Sci. Philadelphia, ser.  
2, vol. 12, p. 510, pl. 13, upper figure,  
1904 (Padang); Proc. Acad. Nat.  
Sci. Philadelphia, 1905, p. 72  
(Padang materials).

Can 30

Genus Pachymetopon Günther

Pachymetopon Günther, Cat. Fishes  
British Mus., vol. 1, 1859, p. 424. Type

Pachymetopon grande Günther,  
monotypic.

Body ovate. Teeth uniserial  
incisors, with band of smaller conic  
ones behind. No molars. No teeth in  
palate. Scales small. Opercle scaly  
and preopercle edge naked. Dorsal  
and anal partly and caudal entirely,  
scaly. Dorsal continuous, not notched,  
and front soft dorsal and anal rays  
not elevated as lobes.

Likely a single species in South  
Africa and Madagascar.



Caranx (selar) megalaspis Weber and  
Beaufort, Fishes Indo Austral.  
Archipel., vol. 6, p. 219, 1931 (compiled).

23376. Liliwango Bay, Burias Island. March 5, 1909. Length 52 mm.

14250. Candaraman Island, Balabac Island. January 4th 1909. Length 60 mm.

[D. 5360]. Corregidor Light, N.  $74^{\circ}$  W., 6.9 miles ( $14^{\circ} 21' N.$ ,  $120^{\circ} 41' E.$ ), Manila Bay, Luzon. In 12 fathoms. February 7, 1909. Length 77 mm.

23508. Dalaganan Island, vicinity of eastern Palawan. April 8, 1909. Length 55 mm.

17347, 17348, 17350. Isabel, Basilan Island, south of Zamboanga. September 11, 1909. Length 85 to 97 mm.

23714. Labuan Blanda Island, N.  $88^{\circ}$  E., 1 mile ( $4^{\circ} 27' 00'' S.$ ,  $122^{\circ} 55' 40'' E.$ ), Buton Strait. In 24 fathoms. December 14, 1909. Length 55 mm.

18570, 24040, 24043, 24044, 24046.

Malanipa Island, south of Zamboanga. September 8, 1909. Length 56 to 85 mm.



1429

Depth  $2\frac{2}{3}$  ; head  $3\frac{7}{8}$ , width  $2\frac{1}{8}$ . Snout  $3\frac{2}{3}$  in head from snout tip; eye  $3\frac{1}{3}$ , greater than snout, or interorbital; maxillary reaches  $\frac{1}{5}$  in eye, length  $2\frac{2}{5}$  in head from snout tip; interorbital 4, convexly elevated. Gill rakers  $7 + 25$ , little longer than gill filaments or trifle over 2 in eye.

Scales  $30 + 40$  in lateral line, arch  $2\frac{3}{4}$  in straight section; 10 scales above, 30 below. Scute depth  $4\frac{1}{6}$  or less in body depth.

D. I, VIII - I, 25, third spine  $2\frac{1}{2}$  in total head length, second ray  $1\frac{3}{4}$ ; A. II - I, 20, first ray  $2\frac{2}{5}$ ; least depth of caudal peduncle 5; ventral  $3\frac{1}{3}$ ; pectoral  $3\frac{1}{2}$  in

fish without caudal; caudal fin  
3  $\frac{1}{2}$ , deeply forked.

Back and head above pale  
slate gray, sides and below  
bright silvery white. Large  
blackish blotch nearly equal to  
eye on upper part of opercle  
and shoulder girdle, also  
reflected inside gill opening.  
Snout dusky above. Fins pale  
brownish, upper portions of  
dorsals and caudal dusky.  
Iris yellowish.

East Indies, Philippines.



1431

22142, D. 5461. Caringod Island  
(W.), N.  $12^{\circ}$  W., 4.9 miles (lat.  $13^{\circ}$   
 $57'42''$  N., long.  $123^{\circ}06'42''$  E.),  
east coast of Luzon. In 11 fathoms.  
June 14, 1909. Length 110 mm.

8853, 8854. Catbalogan, Samar.  
April 15, 1908. Length 84 to 104 mm.

19599, 19600. Manila market.  
January 13, 1908. Length ~~75~~ 75 to 88 mm.

9060. Manila market. June  
24, 1908. Length 83 mm.

5372, 5373, 5375. Oton market.  
March 30, 1908. Length 100 to 118 mm.

5598, 5600, 5601. Tacloban  
market. July 25, 1909. Length 110 to  
125 mm.

1895, p. 259 (Venez).  $\frac{1}{m}$  Regan, Ann.  
Natural Mus., 1908, p. 245 (Bird  
Island).  $\frac{1}{m}$  Pellegrin, Bull. Soc. Zool.  
France, vol. 39, 1914, p. 224 (Fort  
Dauphin, Madagascar).  $\frac{1}{m}$  Von Bonde,  
Fishes Marine Survey, Special Report 1,  
1923, p. 16.

Sciaena antarctica Castelnau, Proc. Zool.  
Acclimat. Soc., vol. 5, 1872, p. 100. Bass  
Strait; Cape of Good Hope; Record London  
Internat. Exhibition, 1873, pt. 7, no. 5, p.  
11 ( $\frac{1}{m}$  Macleay, Proc. Linn. Soc. New South Wales, vol. 5, 1881, p. 520).  $\frac{1}{m}$  Woods, Fishes New South  
Wales, 1883, p. 53, pl. 16.  $\frac{1}{m}$  Ogilby,  
Handbook of Sydney, 1898, p. 130.  $\frac{1}{m}$  Waite, Records Australian Museum, vol. 5, pt. 2, 1904, p. 63 (Mandurah, West Australia).  
 $\frac{1}{m}$  Stead, Fishes of Australia, 1906, p. 113, fig. 43  
(New South Wales, Victoria, Queensland, South  
Australia); Edible Fishes of New South  
Wales, 1908, p. 66, pl. 37.  $\frac{1}{m}$  Ogilby,  
Commercial Fishes Fish. Queensland, 1916,  
p. 23.  $\frac{1}{m}$  Roughley, Fishes of Australia,



A. N. S. P., No. 27504. Padang,  
Sumatra. A. C. Harrison and  
H. M. Heller. Four examples.  
Length to 128 mm.

124789 119  
Light blue with silvery reflections. Black spot on temple. Upper lip yellow. Ends of fins golden. (Sauvage.)

4 Seychelles. The types, obtained by Dussumier, were nearly 305 mm. long.

Lethrinus argenteus Valenciennes ← 129

Lethrinus argenteus VALENCIENNES, Hist. Nat. Poiss., vol. 6, 1830, p.

1830  
303, (Seychelles). SAUVAGE, Hist. Nat. Madagascar Poiss., 1891, p. 199, pl. 23, figs. 2a-b (type).

type locality:  
Depth  $2\frac{3}{5}$ ; head 3, upper front profile straight. Snout  $1\frac{7}{8}$  in head from snout tip; eye  $3\frac{7}{8}$ , 2 in snout, maxillary reaches  $\frac{3}{4}$  to eye; expansion  $1\frac{3}{4}$  in eye, length  $2\frac{3}{4}$  in head from snout tip; teeth conic, small, more rounded in upper jaw; interorbital low, greater than eye.

Scales 55 in lateral line to caudal base and 6 more nontubular out over latter; 6 above, 17 below, predorsal scales forward opposite hind eye edge.

File  
D. X, 9 (XI, 8 on figure), second spine  $2\frac{4}{5}$  in total head length, fourth ray  $2\frac{1}{10}$ ; A. III, 8, second spine  $3\frac{1}{2}$ , first ray  $2\frac{2}{3}$ ; caudal  $1\frac{1}{5}$ , deeply emarginate; least depth of caudal peduncle  $3\frac{1}{8}$ ; pectoral  $1\frac{1}{3}$ ; ventral  $1\frac{2}{5}$ .

Silvery, with nacreous reflection; all fins rosy, except pectoral which yellowish. (Sauvage.)

Valenciennes gives 175 mm. as the length of his type. Sauvage says it is near Lethrinus fasciatus, but the latter differs in its convex profile. It suggests Lethrinus ramak, except the second dorsal spine is shown as the longest dorsal spine in Sauvage's figure. In this respect it surely approaches close to Lethrinus nematacanthus.



1433

Alepes mate (Cuvier)

Caranx mate Cuvier, Hist. Nat. Poiss.,  
vol. 9, p. 40, 1833 (type locality,  
Pondicherry; Seychelles; New Guinea;  
Amber Strait). — Cantor, Journ. Asiatic  
Soc. Bengal, vol. 18, pt. 2, p. 1107, 1849  
(1850) (Pinang Sea).

— Day, Fishes of Malabar, p. 82, 1865;  
Proc. Zool. Soc. London, p. 689, 1870.

— Fowler, Journ. Acad. Nat. Sci. Philadelphia,  
ser. 2, vol. 12, p. 510, pl. 13, lower figure,  
June 10, 1904 (Padang); Proc. Acad.  
Nat. Sci. Philadelphia, p. 74, Jan. 1905  
(Padang material).

head, except cheeks and opercles,  
Scales with  
naked; 10 or 11 basal radiating striae;  
10 to 40 short apical denticles in 1 or  
2 series; ~~an~~ circuli moderate.

D. VII - I, 9, I, fourth spine  $2\frac{1}{5}$  to  $2\frac{2}{5}$  in  
head, first ray  $1\frac{2}{3}$  to  $1\frac{4}{5}$ ; A. II, 8, I,  
second spine  $2\frac{4}{5}$  to  $3\frac{1}{5}$ , first ray  
 $2$  to  $2\frac{1}{4}$ ; caudal  $1\frac{1}{5}$  to  $1\frac{1}{2}$ , slightly  
emarginate behind; least depth of  
caudal peduncle  $2\frac{1}{2}$  to  $2\frac{3}{5}$ ; pectoral  
 $1\frac{1}{2}$  to  $1\frac{3}{5}$ ; ventral  $1\frac{7}{8}$  to  $1\frac{9}{10}$ .

Pale brown, much lighter below,  
whitish silvery reflections on opercles,  
breast and space below pectorals.  
Iris whitish, except as crossed by  
horizontal dark <sup>blackish brown</sup> band extending  
from snout tip to caudal base  
medianly, narrowing to line on  
caudal peduncle posteriorly and



— Fowler,  
and Bean, Proc. U. S. Nat. Mus.,  
vol. 62, art. 2, 1922, p. 19 (Cebu).  
— Fowler and Ball, Bull. Bishop  
Mus., no. 26, p. 12, 1925 (Midway Island).  
— Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 79, 1927, p. 269  
(Orion; Philippines; Mem. Bishop  
Mus., vol. 10, p. 145, 1928 (Fiji; type  
of Carangus politus; Hawaii; Honolulu;  
Midway Islands; Proc. Acad. Nat.  
Sci. Philadelphia, vol. 81, 1929, p. 605  
(Hong Kong); Mem. Bishop Mus., vol. 11,  
no. 5, p. 326, 1931 (Honolulu); Proc. Acad.  
Nat. Sci. Philadelphia, vol. 86, 1934, p.

caudal 1, deeply emarginate; pectoral  
1 1/6; ventral 1 1/4.

Olive, fawn color below. On side  
nine vertical deep clove brown  
bands, each little narrower than  
interspaces, within which parallel  
alternate clove brown vertical line.  
Fins neutral dusky, ventral  
especially dark terminally.

Cape Colony, Natal, Portuguese  
East Africa, Madagascar.

53019 A.N.S.P. Natal coast. H.W.  
Bell Marley, 1925. Length 215 mm.



441 (Surban, Natal).

1435

Alepes mate Fowler, Proc. Acad.  
Nat. Sci. Philadelphia, vol. 87, p.  
140, 1935 (~~Sri Lanka~~  
Bangkok).

Depth  $1\frac{9}{10}$ ; head  $3\frac{2}{5}$ , width  $1\frac{7}{8}$ .  
Snout 3 in head; eye 4,  $1\frac{2}{5}$  in snout,  
equals interorbital; maxillary reaches  
eye, expansion  $2\frac{1}{2}$  in eye, length  
3 in head; teeth uniserial incisors;  
hind preopercle edge serrated;  
interorbital 4. Gill rakers  $8 + 15$ ,  
lanceolate.

Scales 88 in lateral line; tubular  
scales 69 in lateral line; 28 scales  
above lateral line, 33 below, 60  
predorsal; 15 rows across cheek.  
Scales with 12 to 18 basal radiating  
striae, 40 to 53 apical denticles,  
with 3 to 7 transverse series of  
basal elements; circuli fine.

D. X, 22, I, fourth spine  $2\frac{1}{3}$  in  
head, third ray  $1\frac{1}{2}$ ; A. III, 14, I,  
second spine  $3\frac{1}{5}$ , third ray  $1\frac{1}{2}$ ;



Caranx xanthurus (Kuhl and Van Hasselt) Cuvier, Hist. nat. Poiss., vol. 9, p. 55, 1833 (type locality, Batavia).  
— Bleeker, Verh. Batavia. Genoot. (Bali), vol. 22, p. 3, 1849 (west coast of Bali); Madura), vol. 22, p. 4, 1849 (Kammal and Tangong); Ned. Tijds. Dierk., vol. 2, p. 34, 1865 (Siam), p. 174 (reference); Arch. Néerl. Sci. nat. Harlem, vol. 2, p. 398, 1867 (Halmaheira); Verslagen Kon. Akad. Wet. Amsterdam, ser. 2, vol. 2, p. 293, 1868 (Rio, Bintang).  
— Martens, Reise Preuss. Exped. Ost Asien, vol. 1, p. 341, 1876 (Singapore).

ones chisel like incisors, laterals more pointed; usually no inner rows, sometimes few small conic teeth, more or less concealed by fleshy pads. Scales uniformly small, present on head except on muzzle; entire cheeks scaly. Spinous dorsal with margins of membranes notched, spines 10 besides recumbent spine in front, rays 17 to 23. Anal spines 3, rays 13 to 15. Front soft dorsal and anal rays little elevated as moderate pointed lobes. Caudal emarginate. Paired fins small.



Caranx raffinis Rüppell, Neue  
Wirbelth. Fische, p. 49, pl. 14, fig. 1,  
1835 (type locality, Massana, Red  
Sea).

— Kner, Reise Novara, Fische, p. 157, 1865  
(Java).

— Kleinzinger, Berk. zool. bot. Gesell.  
Wien, vol. 21, p. 457, 1871 (Red Sea).

— Day, Fishes of India, pt. 2, p. 219, pl.  
49, fig. 4, 1876 (Madras). — Steindachner,  
Sitzb. Ber. Akad. Wiss. Wien, math.-  
naturw. Kl., vol. 83, pt. 2, p. 211.

— Day, Fauna British India, Fishes, vol. 2,  
p. 158, 1889.

254

forms rounded spot size of pupil  
on caudal base. Fins all pale;  
dorsals slightly pale brownish,  
broadly dusky brown over anterior  
half, soft dorsal and anal  
each with subbasal longitudinal  
or horizontal dark band; upper  
and lower caudal edges narrowly  
dark; front ventral edges broadly  
brown.

Red Sea, Mozambique, Natal, Mauritius,  
Seychelles, India, East Indies, Philippines,  
Micronesia, Polynesia, Hawaii.



Caranx affinis Rüppell, Neue  
Wirbelth. Fische, p. 49, pl. 14, fig. 1,  
 1835 (type locality, Massana, Red  
 Sea). — Vaillant, Bull. Soc.  
Philomath. Paris, ser. 7, vol. 11, p.  
 53, 1886-87 (Tahiti). — Seale,  
Occas. Pap. Bishop Mus., vol. 1,  
 no. 5, p. 166, 1902 (Honolulu). —  
Evermann and Seale, Bull. Bur.  
Fisher., vol. 26, p. 64, 1906 (1907)  
 (Bulan). — Jordan and Richardson,  
Bull. Bur. Fisher., vol. 27, p. 250,  
 1907 (1908) <sup>Mem. Carnegie Mus., vol. 9, no. 1, p. 178, 1909 (Faleas)</sup> (Larite) — Beaufort,  
Byd. Dierk. Amsterdam, vol. 19, p.  
 132, 1913 (Waigiu). — Fowler, Bull.  
Bishop Mus., no. 22, p. 25, 1925  
 (Honolulu).  
 — McCulloch, Biol. Res. Endeavour, vol. 3,  
 pt. 3, pt. 3, p. 130, April 21, 1915 (Broome,  
 north-west Australia).

No. 2, 1914, p. 90 (Habits).  $\frac{1}{m}$  Gilchrist  
and Thompson, Ann. Durban Mus.,  
vol. 1, pt. 4, 1917, p. 358 (references).  $\frac{1}{m}$   
Thompson, Marine Biology. Rep. South  
Africa, no. 4, 1918, p. 86 (references).  $\frac{1}{m}$   
Fowler, Proc. Acad. Nat. Sci. Philadelphia,  
1925, p. 233 (Natal).  $\frac{1}{m}$  Barnard,  
Ann. South African Mus., vol. 21, pt. 2,  
1927, p. 635, pl. 25, fig. 2 (Walfish Bay,  
Table Bay, False Bay, Natal, Delagoa  
Bay).

Dipterodon multifasciatus Pellegrin,  
Bull. Soc. Zool. France, vol. 59, 1914,  
p. (229) 231. Fort Dauphin, Madagascar.



— Vinciguerra, Ann. Mus. Civ. Stor. Nat.  
Genova, ser. 3, vol. 10, p. 561, Aug. 23,  
1926 (Tarawa).

Depth 3 to  $3\frac{1}{2}$ ; head  $2\frac{1}{2}$  to  $2\frac{2}{3}$ , width  
2 to  $2\frac{1}{5}$ . Snout 4 to  $4\frac{1}{8}$  in head; eye  
3 to  $3\frac{1}{3}$ , greater than snout or  
interorbital; maxillary reaches  $\frac{1}{2}$  to  
 $\frac{3}{5}$  in eye, expansion  $2\frac{3}{5}$  to  $2\frac{4}{5}$  in  
eye, length 2 to  $2\frac{1}{8}$  in head; bands  
of villiform teeth in jaws, on vomer  
and palatines; bony interorbital  
5 to  $6\frac{1}{4}$ , nearly level; preopercle  
ridge and edge finely serrated,  
also lower edge of narrow infraorbital.  
Gill rakers 4 + 13, of which 2  
above and 4 below rudimentary,  
others lanceolate or equal gill  
filaments, which 3 in head.

Scales 22 or 23 in lateral line to  
caudal base and 3 or 4 more on latter,  
2 above, 6 below, 4 predorsal, 2 rows  
on cheek to preopercle ridge;



Caranx (Selar) affinis Klunzinger,  
Fische Roth. Meer., vol. 1, p. 97, 1884.

Caranx (Atule) affinis Waksya, Ann.  
Carnegie Mus., vol. 15, p. 200, pl. 30, fig.  
1, 1924 (Formosa; Ryukyu).

Proc. Acad. Nat. Sci. Phila., 1906, p. 527  
(Hawaiian Islands).

Amia nyderi Jordan and Evermann,  
Bull. U. S. Fish Comm., vol. 22, pt. 1,  
1903 (1905), p. 214 (Honolulu and Hilo). —

Jordan and Seale, Bull. Bur. Fisher.,  
vol. 25, 1905 (1906), p. 237 (Apia and  
Pago Pago).

Apogon menesemus Jenkins, Bull. U. S. Fish  
Comm., vol. 22, 1902 (1903), p. 448, fig. 19.

Honolulu. — Fowler, Proc. Acad. Nat. Sci.  
Phila., 1906, p. 527 (Hawaiian Islands).

Apogon evanidus Fowler, Journ. Acad. Nat.  
Sci. Phila., ser. 2, vol. 12, 1904, p. 518. Padang,  
Sumatra; Proc. Acad. Nat. Sci. Phila., 1906,  
p. 527 (type).

Apogon holotaenia Regan, Journ. Bombay  
Nat. Hist. Soc., vol. 16, no. 2, 1905, p. 319  
(331). Inscat, in 15 to 30 fathoms.



Caranx (Selar) affinis Steindachner,  
Denks. Akad. Wiss. Wien, math.  
naturw. Kl., vol. 70, p. 195, 1901  
(Honolulu).

Carangus affinis Jordan and Evermann,  
Bull. U. S. Fish Comm., vol. 23, pt. 1,  
p. 195, fig. 76, 1903 (1905) (Honolulu).

Aitule affinis Jordan and Jordan,  
Mem. Carnegie Mus., vol. 10, no. 1, p.  
38, December 1922 (Honolulu).

Selar affinis Barnard, Ann. South  
African Mus., vol. 21, pt. 2, p. 538,  
Oct. 1927 ( Natal coast ).

Oshima, Philippine Journ. Sci., ~~vol.~~ vol.  
26, no. 3, p. 380, March 1925 (compiled).

Canal 129

Coracinus capensis (Cuvier)

Dipterodon capensis Cuvier, Hist. Nat. Poiss.,  
vol. 7, 1831, p. 276, pl. 188. Cape of Good  
Hope.  $\frac{1}{m}$  Valenciennes, Règne Animal,  
Cuvier, Ill. Poiss., 1839, pl. 43, fig. 2.  
 $\frac{1}{m}$  Pappe, Synop. Edible Fishes Cape, 1853,  
p. 23 (Western division of Colony).  $\frac{1}{m}$   
Günther, Cat. Fishes British Mus., vol. 1,  
1859, p. 426 (Cape of Good Hope).  $\frac{1}{m}$  Bleeker,  
Natuurk. Tijdschr. Nederl. Indië, vol. 21,  
1860, p. (50, 53) 63 (Cape of Good Hope).  $\frac{1}{m}$   
Castelnau, mém. Poiss. Afrique Australe,  
1861, p. 34 (West Coast and Table Bay).  
 $\frac{1}{m}$  Peters, Monatsb. Akad. Wiss. Berlin,  
1876 (1877), p. 833 (Cape of Good Hope).  $\frac{1}{m}$   
Gilchrist and Thompson, Ann. South  
African Mus., vol. 6, 1908-11, p. 165 (Natal).  
 $\frac{1}{m}$  Lempe, Deutsche Sudpolar Exped., vol. 15,  
pt. 2, 1914, p. 235 (Simonstown).  $\frac{1}{m}$   
Gilchrist, Marine Biology. Rep. South Africa,



Nelar hasseltii Bleeker, Nat.  
Tijds. Ned. Indië, vol. 1, p. 359,  
1850 (type locality, Batavia;  
Cheribon; Surabaya); vol. 3, p.  
717, 1852 (Karang hadji, Banka);  
Verh. Batavia. Genoot. (makreel.),  
vol. 24, p. 53, 1852 (Batavia;  
Cheribon; Surabaya); Nat. Tijds.  
Ned. Indië, vol. 5, p. 319, 1853  
(Amboina); vol. 6, p. 51, 1854  
(Lindangole, Halmaheira); vol. 7,  
p. 227, 1854 (Macassar), p. 312  
(Bantem, Tjiringin); vol. 8, p. 393,  
1855 (Amboina); vol. 9, p. 282, 1855  
(Macassar), p. 492 (Batjan); Act.  
Nat. Sci. Ind. Neerl., no. 5, vol. 1,  
p. 6, 1856 (Amboina); no. 7, vol. 2,  
p. 5, 1857 (Amboina); Nat. Tijds.  
Ned. Indië, vol. 20, p. 198, 1859-60  
(Badjoa), p. 237 (Singapore), p. 449 (Singapore).



224  
paul 30 Genus Coracinus Gronow

Coracinus Gronow, Zoophylacii, 1766,  
p. 66. Type Coracinus cauda-lunata  
Gronow = Dipterodon capensis Cuvier,  
designated by Jordan and Evermann,  
Genera of Fishes, pt. 1, 1917, p. 19.

Dipterodon (not Lacépède<sup>1803</sup>) Cuvier, Règne  
Animal, ed. 2, vol. 2, 1829, p. 194. Type  
Dipterodon capensis Cuvier, monotypic.  
(Not available as genus and species not  
described.) — Hist. Nat. Poiss., vol. 7,  
1831, p. 274. Type Dipterodon capensis  
Cuvier, monotypic.

Dichistius Gill, Proc. U. S. Nat. Mus.,  
vol. 11, 1888, p. 68. Type Dipterodon  
capensis Cuvier. Dichistius Gill proposed  
to replace Dipterodon Cuvier.

Body deeply ovate. Head moderate,  
obtuse. Snout short. Eye small, advanced.  
Mouth small. Teeth uniserial, front



Caranx hasseltii Günther, Cat. Fish.  
Brit. Mus., vol. 2, p. 430, 1860 (Amboina;  
Moluccas). — Playfair, Fishes of  
Zanzibar, p. 59, 1866 (Seychelles).

— Weber, Zool. Forschungen. Senon,  
vol. 5, p. 266, 1895.

1884, p. 22.

Amia frenata Bleeker, Atlas Ichth.

Ind. Néerl., vol. 7, 1873-76, p. 89 (Celebes, Ternate, Batjan, Buru, Ceram, Amboina, Goram, New Guinea); vol. 8, 1876-77, pl. (64) 342, fig. 2. — Fowler, Copeia, no.

58, June 18, 1918, p. 63 (Philippines);

Bishop Mus. Bull., no. 22, 1925, p. 8

(Guam), p. 25 (Honolulu); Proc. Acad.

Nat. Sci. Phila., 1927, p. 274 (Philippines).

Amia frenata Evermann and Seale, Bull.

Bur. Fisher., vol. 26, 1906 (1907), p. 71

(Bacon).

Apogon vittiger Bennett, Proc. Zool. Soc.

London, vol. 1, 1833, p. 32. Mauritius. —

Regan, Trans. Linn. Soc. London, vol. 12,

ser. 2, 1907, p. 225 (Coetivy, Seychelles Group).



Caranx hasselti Macleay, Proc.  
Linn. Soc. New South Wales, vol.  
7, ~~pp. 3, 4, 185~~ p. 356, 1882 (New Guinea).  
— Jordan and Seale, Proc. U. S.  
Nat. Mus., vol. 28, p. 776, 1905 (Negros);  
Bull. Bur. Fisher., vol. 26, p. 13,  
1906 (1907) (Cavite).

Caranx hasseltii Fowler, Copeia, no.  
58, p. 63, June 18, 1918 (Philippines).

round spot. dorsal and caudal like  
back, other fins whitish. Iris gray  
brown, with narrow golden circle  
around pupil.

Hawaii. Known only from the type.

50664 U. S. N. M. Heeia, Oahu.

Bureau of Fisheries (03363). Length  
368 mm. Type.



Carangus politus Jenkins, Bull.  
U. S. Fish Comm., vol. 22, p. 445, fig.  
17, 1902 (1903) (type locality,  
Honolulu). — Jordan and Evermann,  
Bull. U. S. Fish Comm., vol. 23, pt. 1,  
p. 194, 1903 (1905) (type; Honolulu).  
Atele polita Jordan and Jordan, Mem. Carnegie Mus.,  
vol. 10, no. 1, p. 38, Dec. 1922 (Honolulu).

Caranx mauritanus (not Duoy and  
Gaimard) Streets, Bull. U. S. Nat.  
Mus., no. 7, p. 68, 1877 (Honolulu).

~~Halarg~~.

Decapterus lundini Jordan and Seale,  
Bull. Bur. Fisher., vol. 25, p. 229,  
fig. 27, 1905 (1906) (type locality,  
Pago Pago, Samoa).

Caranx affinis lundini Nichols,  
Amer. Mus. Novit. New York, no. 50, p.  
1, October 24, 1922 (Hawaiian Islands).  
Atele lundini Jordan and Jordan, Mem.  
Carnegie Mus., vol. 10, no. 1, p. 38, 1922<sup>2</sup> (Honolulu).  
Da.

scales all small toward body edges.  
Scales with 4 basal radiating striae;  
65 apical series of striae.

D. XI, 15, I, last spine 3 in head,  
first ray  $3\frac{2}{3}$ , last ray  $3\frac{1}{4}$ ; A.  
III, 13, I, third spine  $4\frac{1}{5}$ , first ray  
 $2\frac{3}{4}$ ; caudal peduncle  $3\frac{1}{10}$ ; pectoral  
 $1\frac{3}{4}$ ; ventral  $2\frac{1}{8}$ ; caudal deeply  
forked, lobes slenderly pointed,  
 $3\frac{2}{5}$  (tips damaged) in combined head  
and body to caudal base.

Back and head above number to  
median axis of body - at which  
longitudinal blackish band, narrow  
from snout end to and along lower  
eye edge to pectoral base, behind  
which 3 or 4 scales wide with each  
scale with contrasted small white  
spot. Lower half of body whitish,  
each scale also with white or pale



1446

Scomber bimaculatus (Ehrenberg)  
Klunzinger, Fische Roth. Meer., vol. 1,  
p. 97, 1884 (name in text).

Apogon melanorhynchus Bleeker, Nat.  
 Tijds. Ned. Indië, vol. 3, 1852, p. 255.  
Wahai, North Ceram.

Apogon melanorhynchus Weber, Siboga  
Exped., vol. ~~65~~<sup>57</sup> ~~Fishes~~, 1913, p. 227 (Kusa Laut  
and Low Key).

Amia melanorhynchus Bleeker, Atlas  
Ichth. Ind. Néerl., vol. 7, 1873-76, p. 90  
(Singapore, Bawean, Celebes, Ternate,  
Buru, Ceram, Amboina); vol. 8, 1876-77,  
pl. (65) 343, fig. 1.

Apogon endekataenia (non Bleeker) Day,  
Fishes of India, pt. 1, 1875, p. 57, pl. 16, fig.  
1.

Apogon fasciatus (non Shaw) Day, Fauna  
Brit. India, vol. 1, 1889, p. 474 (part).

Apogon snyderi Jordan and Evermann,  
Bull. U. S. Fish Comm., vol. 22, 1902 (1903),  
p. 180. Honolulu and Hilo; op. cit., vol. 23,  
pt. 1, 1903 (1905), pl. 36 (type). — Fowler,



Decapterus kurra (not Bleeker)  
Fowler, Copeia, no. 58, p. 63, June  
18, 1918 (one Philippine example).

Selar cruenophthalmus (not  
Bloch) Fowler, Mem. Bishop Mus.,  
vol. 10, p. 144, 1928 (on Streets).

Cover<sup>29</sup>

Sectator azureus Jordan and Evermann  
Sectator azureus Jordan and Evermann,  
Bull. U. S. Fish Comm., vol. 22, 1902  
(1903), p. 185. Near Heeia, Oahu Island,  
Hawaii; ~~op. cit.~~, vol. 23, pt. 1, 1903 (1905),  
p. 248, pl. 20 (type).  $\frac{1}{m}$  Fowler, Mem.  
Bishop Mus., vol. 10, 1928, p. 222 (type).

Depth 3; head 4, width  $1\frac{2}{3}$ . Snout  
 $3\frac{2}{3}$  in head; eye  $4\frac{4}{5}$ ,  $1\frac{1}{4}$  in snout,  
 $2\frac{1}{4}$  in interorbital; maxillary reaches  
 $\frac{7}{8}$  to eye, expansion 2 in eye, length  
4 in head; jaws about even; teeth  
in jaws uniserial, compressed, very  
small; interorbital  $2\frac{1}{6}$ , convexly  
elevated. Gill rakers 8 + 20, lanceolate,  
 $1\frac{1}{2}$  in gill filaments, which equal eye.

Scales 68 in lateral line to caudal  
base and 12 more on latter; tubes  
in lateral line small, largely concealed;  
14 scales above, 20 below, 65 predorsal;



Depth  $2\frac{2}{3}$  to  $3\frac{1}{4}$ ; head  $3\frac{1}{8}$  to  $3\frac{4}{5}$ , width  $1\frac{7}{8}$  to  $2\frac{1}{5}$ . Snout  $3\frac{1}{4}$  to  $3\frac{3}{4}$  in head from snout tip; eye 3 to  $3\frac{7}{8}$ , subequal with to  $1\frac{1}{8}$  in snout,  $1\frac{1}{8}$  to  $1\frac{1}{4}$  in interorbital; maxillary reaches eye, expansion  $2\frac{1}{5}$  to  $2\frac{11}{4}$  in eye, length  $2\frac{2}{3}$  to  $2\frac{3}{4}$  in head from snout tip; interorbital  $3\frac{1}{8}$  to 4, convexly elevated, with median keel. Gill rakers 11 to 14 + 24 to 32, finely lanceolate, equal gill filaments or  $1\frac{1}{4}$  in eye.

Scales 40 + 38 to 48 in lateral line (last 8 on caudal base); arch  $1\frac{1}{4}$  in straight section, which begins about opposite base of fourth or fifth dorsal ray; 10 or 11 scales above lateral line arch, 25 or 26 below to soft anal origin.

D. I, VIII — I, 23 or 24, last ray largely free, third spine 2 to  $2\frac{1}{8}$  in total head, first branched ray 2; A. II — I, 19 or 20, last ray largely free, first branched ray  $2\frac{1}{4}$  to  $2\frac{2}{5}$ ; caudal  $1\frac{1}{5}$  to  $1\frac{1}{4}$ , triangular, deeply emarginate; least depth of caudal peduncle 8 to  $8\frac{1}{3}$ ; ventral 2, rays I, 5; pectoral rays I, 19 or 20, length  $3\frac{1}{4}$  to  $3\frac{3}{4}$  in fish without caudal.

Back gray brown or drab, lower half of body silvery white. Iris whitish. Large blackish brown blotch on opercle, also reflected on shoulder girdle about size of pupil. Fins all pale. About dozen dark gray transverse parallel bands on side of body and back, each band wider than pale interspace.



Red Sea, Arabia, Natal,  
Madagascar, Seychelles, India,  
Ceylon, Andamans, Malaya,  
East Indies, Tonkin, Philippines,  
Formosa, Riu Kiu, North west  
Australia, Hawaii.

9061. Little Santa Cruz,  
Zamboanga. May 26, 1908. Length  
91 mm.

8615, 8616. Matnog Bay.  
June 11, 1909. Length 259 to 275 mm.  
9341, <sup>9342</sup>, 9342. Murcielagos Bay,  
Mindoro. August 21, 1909.  
Length 293 to 315 mm.

A658. Simalue Sibi Sibi  
Island. September 23, 1909.  
Length 285 mm.

5599, 5602, 5607. Tacloban  
market. July 25, 1909. Length 96  
to 127 mm.

9192 to 9198. Tilig, Lubang  
Island. July 25, 1909. Length  
164 to 178 mm.

7696. Ulugan Bay, Palawan.  
December 29, 1908. Length 250 mm.



series 2, vol. 2, 1866, p. 145 (Madagascar).  
+ <sup>1</sup>/<sub>m</sub> Vauvage, Hist. nat. Madagascar,  
Poiss., 1891, p. 349. + <sup>1</sup>/<sub>m</sub> Barnard, Ann.  
South African Mus., vol. 21, pt. 2, 1927,  
p. 569 (Luderitzbucht, Table Bay, False  
Bay, Natal, Delagoa Bay, to 200 fathoms).  
Sciaena capensis Andrew Smith, Illustr.  
Zool. South Africa, Fishes, vol. 4, 1849,  
pl. 15.

Sciaena aquila (not Lacépède) Günther, Cat.  
Fishes Brit. Mus., vol. 2, 1860, p. 291 (Algoa  
Bay). + <sup>1</sup>/<sub>m</sub> McCoy, Rep. Melbourne Internat.  
Exhib., 1866, p. 317. + <sup>1</sup>/<sub>m</sub> Schmeltz, Cat.  
Mus. Godeffroy, vol. 6, 1877, p. 14 (Sydney).  
+ <sup>1</sup>/<sub>m</sub> Castelnau, Proc. Linn. Soc. New South Wales,  
vol. 2, 1878, p. 232 (Brisbane, Sydney);  
vol. 3, 1879, p. (351) 381 (Port Jackson).  
+ <sup>1</sup>/<sub>m</sub> Ogilby, Edible Fishes New South Wales,  
1893, p. 72, pl. 22. + <sup>1</sup>/<sub>m</sub> Steindachner, Zool.  
Anzeiger, vol. 32, nos. 24-25, November 21,

A 911 and A 912. Limbe Strait,  
Celebes. November 11, 1909. Length  
285 to 290 mm.



case 179

1002

Johnius hololepidotus (Lacépède)

Lubrus hololepidotus Lacépède, Hist.

Nat. Poiss., vol. 3, 1802, pp. 448, 518, pl.

21, fig. 2. Great Equatorial Ocean.

Sciaena hololepidotus Cuvier, Hist. Nat.

Poiss., vol. 6, 1830, p. 53 (Cape of Good Hope;

St. Dauphin, Madagascar).  $\frac{1}{m}$  Andrew

Smith, Illustr. Zool. South Africa, Fishes,

1849, pl. 15 (Cape Town).  $\frac{1}{m}$  Tappe, Synopsis

Edible Fishes South Africa, 1853, p. 15

(Cape of Good Hope).  $\frac{1}{m}$  Castelnau, Mém.

Poiss. Afrique Australe, 1861, p. 9 (Cape

of Good Hope).  $\frac{1}{m}$  Tappe, Synopsis Edible Fishes South Africa

p. 11 (South Africa).

Sciaena hololepidota Quoy and Gaimard,

Voyage Astrolabe, Zool. vol. 3, 1830, p. 697,

pl. 12, fig. 1 (Cape of Good Hope).  $\frac{1}{m}$  Bleeker,

Natuurk. Tijdschr. Nederland. Indië, vol.

21, 1860, p. (50, 52) 63 (Cape of Good Hope).

$\frac{1}{m}$  Guichenot, Mém. Soc. Sci. Nat. Cherbourg,

U. S. N. M., no. 17998. Honolulu. <sup>1453</sup>  
Dr. J. H. Streets. Length 238 mm.  
As Trachurops mauritanus.

U. S. N. M., no. 51980. Negros,  
Philippines. Dr. B. Dean.  
Length 98 mm. As Caranx hasselti.

U. S. N. M., no. 52716. Hawaiian  
Islands. Bureau of Fisheries  
(02928). Length 235 mm. As  
Carangus affinis.

U. S. N. M., no. 55093. Honolulu.  
Albatross Collection. Length 208?  
mm.

U. S. N. M., no. 55534. Honolulu.  
Dr. O. P. Jenkins. Length 210 mm.  
As Carangus affinis.

U. S. N. M., no. 84175. Philippines.  
Dr. Fred Baker. Length 124? mm.

U. S. N. M., no. 51727. Samoa.  
Bureau of Fisheries (04731). Length  
184 mm. Type of Decapterus lundini.



Family SPARIDAE

Body compressed, oblong ovate, usually somewhat elevated. Maxillary slips below preorbital most its length. No supplemental maxillary. Mouth small, nearly horizontal, somewhat protractile. Teeth villiform, conic, incisor or molar-like, seldom (Erynnis) or absent from vomer or palatines. Nostrils paired. Gill membranes free from isthmus. Gills 4, slit behind fourth. Pseudobranchiae present. Air bladder present. Pyloric few. Scales mostly large, weakly crenulate or hardly ctenoid. Ventral with axillary flap. Lateral line single. Dorsal single, sometimes deeply notched. Anal spines 3. Caudal forked or emarginate. Ventrals thoracic, with spine and 5 rays.

A large family of shore fishes, carnivorous, some living in bays and estuaries. Mostly abundant in tropical or subtropical regions. Most all reproduce by pelagic eggs. Many species are valued food fishes, while others are sought for their angling qualities.

Analysis of genera

a<sup>1</sup>. Canines in one or both jaws, no incisors, molars on vomerine teeth; fins often with filaments, sometimes produced.

☐ b<sup>1</sup>. Symphorinae. Front soft dorsal and anal rays end in long produced rays; coloration brilliant. Symphorus

☐ b<sup>2</sup>. Dorsals, caudal and ventrals sometimes with filaments, not anal.

☐ c<sup>1</sup>. Pentapodinae. Outer of anterior slightly enlarged

or front canines in jaws usually flaring outward. Pentapodus

☐ d<sup>1</sup>. Denticinae. Canines few, anterior, not flaring outward.

A. N. S. P., one example. Philippines.  
Commercial Museums of Philadelphia.  
As Caranx hasseltii.

A. N. S. P., one example. Philippines.  
Commercial Museums of Philadelphia.  
As Decapterus burra.

A. N. S. P., six examples. Orion.  
1923. Rev. Joseph Clemens. Purchased.

A. N. S. P., seven examples. Philippines.  
1923. Rev. Joseph Clemens. Purchased.



Follow - Incl Caps

Genus Neolethrinus Castelnau

Neolethrinus CASTELNAU, (Res. Fish. Austral.) (Victoria Off. Rec. Philadelphia Expos., 1875, p. 11. Type Neolethrinus similis CASTELNAU, orthotypic.)

Like Lethrinus except whole palate and all inside of mouth with small molar teeth.

One species in Queensland.

Neolethrinus similis Castelnau

Neolethrinus similis CASTELNAU, (Res. Fish. Australia) (Victoria Off. Rec. Philadelphia Expos., 1875, p. 12, (Cape York, Queensland. - MACLEAY, Proc. Linn. Soc. New South Wales, vol. 5, 1881, p. 415 (on Castelnau).)

Depth  $2\frac{2}{3}$ ; head  $2\frac{2}{3}$ . Eye  $3\frac{1}{2}$  in head; mouth rather extensible and pointed, cleft oblique. Lateral line with 22 scales. D. X, 9; A. III, 8; caudal bilobed. Gray. Large square obscure spot on most scales of back. On lower part of body traces of (2 or 3) slight longitudinal stripes of yellow tinge. Head rather purple, with ocellated round white spots on cheek. Throat white. Fins transparent, rather yellow. Membranes of spinous dorsal somewhat nebulous. Length, 100 mm. (Macleay.)

Queensland.

1455  
Alepes tabulae (Barnard)

Selar tabulae Barnard, Ann. South  
African Mus., vol. 21, pt. 2, p. 538,  
Oct. 1927 (type locality, Table Bay,  
South Africa).



Depth  $3\frac{1}{2}$ ; head  $3\frac{1}{2}$ . Eye 4 in head,  $1\frac{1}{3}$  in snout,  $1\frac{1}{3}$  in inter-orbital, hind adipose eyelid well developed; maxillary reaches below front edge of eye or slightly further; lower jaw projects; teeth very small, uniserial and nearly obsolete in jaws, in narrow bands on vomer, palatines and tongue; vomer with transverse anterior and a median band. Lower gill rakers 55.

Breast, ~~including~~ and head, including interorbital but not snout, scaly. Lateral line moderately curved. Scutes 39, begin below sixth or seventh dorsal ray, their margins denticulate.

Amia frenata (Valenciennes)

Apogon frenatus Valenciennes, Nouv. Ann. Mus. Hist. Nat. Paris, vol. 1, 1832, p. 57, pl. 4, fig. 4. New Guinea and Guam.

Apogon frenatus Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 241 (Fiji); Journ.

Mus. Godeffroy, vol. 1, pt. 1, 1873, p. 19, pl.

19, fig. A (Hawaiian, Society and Tuamotu

Islands). — Day, Fishes of India, pt. 1, 1875, p. 58, pl. 16, fig. 4. — Peters, Monatsb.

Akad. Wiss. Berlin, 1876, p. 436 (Mauritius)

— Day, Fauna Brit. India, vol. 1, 1889, p.

493. — Steindachner, Abhandl. Senckenberg. naturf. Gesell., vol. 25, 1903, p. 416

(Ternate and Batjan). — Weber, Siboga

Exped., vol. <sup>57, Fishes</sup> 65, 1913, p. 227 (Biaru,

Salibabu, west Ceram). — Barnard, Ann. South Afr. Mus., vol. 26, 1927, p. 518 (Katal coast, Mozambique).

Apogon (Pristiapogon) frenatus Klunzinger,

Verh. zool. bot. Ges. Wien, vol. 20, 1870, p.

715 (Koseir, Red Sea); Fische Roth. Meer.,



D. I, VIII, I, 38; A. II - I, 30;  
pectoral falcate, equals head.

Silvery, darker above.

Opercle with black spot. Spinous  
dorsal blackish, soft dorsal and  
anal dusky. Length 410 mm.  
(Barnard.)

South Africa.

8036 and 8303. Tourmindao Island.  
February 26, 1908. Length 78 to 93 mm.  
Male with buccal ova.

23173 and 23174. Tutu Bay, Jolo  
Island, first anchorage. September 19,  
1909. Length 70 to 95 mm.

23119. Labuandata Bay, Gulf of Boni,  
Celebes. December 18, 1909. Length 77 mm.

23889 and 23890. Pendek Island,  
Bnton Strait. December 15, 1909. Length  
61 to 71 mm.



Genus Caranx Lacépède

Caranx (Commerson) Lacépède, Hist.  
Nat. Poiss., vol. 3, p. 57, 1802.

(Type Scomber carangus Bloch  
= Scomber hippos Linnaeus,  
designated by Desmarest, Encyc.  
Hist. Nat. Rept. Poiss., Cherbourg,  
p. 272, 1874.)

Trichopterus Rafinesque, Car.  
Nov. Animal. Sicil., p. 41, 1810.  
(Atypic. Type Scomber carangus  
Bloch, designated by Jordan  
and Evermann, Genera of Fishes,  
pt. 1, p. 79, 1917.)

Carangus Griffith, Animal. Kingd.  
Cuvier, Fish., p. 325, 1837.  
(Atypic. Type Scomber carangus  
Bloch, tantotype.)

Selenia (not Hübner 1816) Benaparte,  
 Cat. Method. Pesc. Europ., p. 75, 1846.  
 (Type Caranx luna Geoffroy St.  
Hilaire, monotypic.)

Carangichthys Bleeker, op. cit., vol.  
 3, p. 760, 1852. (Type Carangichthys  
typus Bleeker, monotypic.)



8 pt. Loaded  
Follow-Incl Caps

213

Sparus latus Houttuyn

134789

292

Sparus latus HOUTTUYN, Verh. Holland. Maatsch. Wet. Haarlem, vol. 20,

1782, p. 322. (Japan). - BONNATERRE, Tabl. Ichth., 1788, p. 102 (seas of Japan). - GMELIN, Syst. Nat. Linn., vol. 1, 1789, p. 1276 (Japanese Seas). - WALBAUM, Artedi Pisc., vol. 3, 1792, p. 300 (on GMELIN). - FORSTER, Fauna Indica, 1795, p. 15. - SCHNEIDER, Syst. Ichth. Bloch, 1801, p. 284 (Japan). - JORDAN and THOMPSON, Proc. U.S. Nat. Mus., vol. 41, 1912, p. 383, fig. 10 (Kobe and Wakanoura). - SNYDER, Proc. U.S.

Nat. Mus., vol. 42, 1912, p. 415 (Tokyo and Kagoshima). - JORDAN and THOMPSON, Mem. Carnegie Mus., vol. 6, no. 4, 1914, p. 256 (Osaka). - IZUKA and MATSUURA, Cat. Zool. Spec. Tokyo Mus., Vertebr., 1920, p. 149 (Tsu, Ise). - JORDAN and HUBBS, Mem. Carnegie Mus., vol. 10, No. 2, 1925, p. 240 (Bay of Mikawa). - OSHIMA, Jap. Journ. Zool. Trans. Abstr., vol. 1, No. 5, March 31, 1927, p. 151 (Tainan). - SCHMIDT, Trans. Pac. Comm. Acad. Sci. U.S.S.R., vol. 1, 1930, p. 50 (Kominato, Riu Kiu).

Coilus datnia BUCHANAN-HAMILTON, Fishes of Ganges, 1822, pp. 88, 369, pl.

9, fig. 29. (All mouths of the Ganges).

Chrysophrys datnia DAY, Fishes of India, pt. 1, 1875, p. 140, pl. 34, fig.

1 (Hooghly River at Calcutta); Fauna Brit. India, Fishes, vol. 2, 1889, p. 44, fig. 17. - OGILBY, Handb. Sydney, 1898, p. 129. - LLOYD, Rec. Indian Mus., vol. 1, 1907, p. 226 (Akyab). - ZUGMAYER, Abh. Bayer. Akad. Wiss., Math.-phys. Kl., vol. 26, pt. 6, 1913, p. 11 (Mekran). - TIRANT, Service Océanogr. Pêch. Indo-Chine, 1929, Note 6, p. 168 (Cochin China).

Chrysophrys datnia PELLEGRIN, Ann. Mus. Zool. R.Univ. Napoli, nov. ser.,

vol. 3, no. 27, July 11, 1912, p. 6 (Massaoua).

Paratractus Gill, Proc. Acad.  
Nat. Sci. Philadelphia, 1862, p. 330.  
(Type Caranx pisgaster Cuvier,  
orthotypic.)

Pseudocaranx Bleeker, Nat. Verh.  
Holland. Maatsch. Haarlem, vol.  
18, No. 2, p. 82, 1863. (Type Scomber  
dentex Schneider, monotypic.)

Claphrotoxon Fowler, Proc. Acad.  
Nat. Sci. Philadelphia, 1905, p.  
76. (Type Scomber ruber Bloch,  
orthotypic.)

Vexilliscaranx Fowler, op. cit., 1905,  
p. 76. (Type Caranx africanus  
Steindachner = Caranx senegallus  
Cuvier, orthotypic.)



Longirostrum Wakiya, Ann. Carnegie Mus., vol. 15, July 1924, pp. 164, 202.  
 (Type Caranx luna Geoffroy St.  
Hilaire virtually, as Longirostrum  
Wakiya proposed to replace Sealenia  
Bonaparte.) (Longirostris S. D. Wood  
 1836 in ornithology, not involved.)

Usa Whitley, Records Austral. Mus.,  
 vol. 15, no. 5, p. 299, April 6, 1927.  
 (Type Scomber cordylaoides  
Muschen, monotypic.)

Diplodus nigrofasciatus (not REGAN) FOWLER, Proc. Acad. Nat. Sci. Philadelphia, 1925, p. 234 (Delagoa Bay).

Sparus robinsoni (not GILCHRIST and THOMPSON) FOWLER, Proc. Acad. Nat. Sci. Philadelphia, 1925, p. 236 (Natal coast).

Depth  $2\frac{1}{8}$  to  $2\frac{1}{2}$ ; head 3 to  $3\frac{1}{2}$ , width  $1\frac{7}{8}$  to 2. Snout  $2\frac{1}{4}$  to  $2\frac{2}{3}$  in head; eye  $3\frac{1}{6}$  to  $4\frac{1}{2}$ ,  $1\frac{7}{8}$  to  $2\frac{1}{5}$  in snout,  $1\frac{1}{6}$  to  $1\frac{4}{5}$  in interorbital; maxillary to eye in young,  $\frac{1}{2}$  in eye with age, expansion  $1\frac{1}{2}$  to  $2\frac{1}{5}$  in eye, length  $2\frac{2}{5}$  to  $2\frac{3}{5}$  in head; 6 front incisors in each jaw, sometimes 8 below; upper molars triserial, lower biserial; interorbital  $2\frac{3}{4}$  to 3 in head, broadly convex. Gill rakers 7 + 10, lanceolate,  $2\frac{2}{3}$  in gill filaments, which  $1\frac{2}{5}$  in eye.

Scales 53 to 57 in lateral line to caudal base and 2 to 10 more on latter, 5 to 8 above, 12 to 14 below, 21 to 30 predorsal forward opposite eye center, 5 or 6 rows across cheek to preopercle ridge. Scales with 13 to 15 basal radiating striae; 40 obsolete apical points with 2 or 3 transverse rows of basal elements; circuli fine.

D. XI, 12, I or 13, I, fourth spine  $1\frac{9}{10}$  to 2 in head, first ray  $2\frac{1}{2}$  to  $2\frac{4}{5}$ ; A. III, 11, I or 12, I, second spine  $2\frac{1}{4}$  to  $3\frac{1}{4}$ , first ray  $2\frac{1}{3}$  to  $3\frac{1}{3}$ ; caudal 1 to  $1\frac{1}{5}$ , well forked; least depth of caudal peduncle  $2\frac{1}{2}$  to  $2\frac{3}{4}$ ; ventral  $1\frac{1}{4}$  to  $1\frac{2}{5}$ ; pectoral  $2\frac{1}{3}$  to  $3\frac{1}{4}$  in combined head and body to caudal base.

Back pale olivaceous to brownish, sides and under surface white, everywhere with bright silvery-white reflections, brassy in alcohol specimens.

Each row of scales on back and upper sides often showing dark longitudinal band, median on each scale row. Iris white with silvery, often neutral shade above. Dorsal pale or grayish, membranes brownish terminally. Caudal grayish, hind edge dusky. Other fins all pale or whitish.

Red Sea, Arabia, Portuguese East Africa, Zululand, Natal, Cape Colony, Madagascar, Mauritius, India, Ceylon, Philippines, China, Formosa, Japan, Queensland, New South Wales.



Zamora Whitley, Rec. Austral. Mus.,  
vol. 18, no. 3, p. 108, March 25, 1931.

Type Caranx hullianus McCulloch,  
orthotypic.)

Body ovate or oblong, compressed, back sometimes well elevated or little arched. Head moderate to large, more or less compressed. Snout variably conic to convex. Eye large. Adipose eyelids usually well developed. Mouth moderate or large, oblique. Maxillary broad. Supplemental maxillary well developed. Teeth unequal, in one or few rows, not in villiform bands. Teeth usually villiform on vomer, palatines and tongue, wanting or deciduous in some forms. Preopercle entire in adult, serrate in young, usually with membranous border. Gill rakers long. Scales present, mostly very small. Lateral line with hind portion armed with strong bony plates, becoming larger on



(file)  
D. X, 9 (X, 10 on figure), fourth spine  $2\frac{2}{5}$  in head, seventh ray  $2\frac{1}{10}$ ; A. III, 8, second spine 3, first ray  $2\frac{3}{4}$ ; caudal  $1\frac{1}{10}$ , very slightly emarginate behind; least depth of caudal peduncle  $2\frac{2}{3}$ ; pectoral  $1\frac{1}{10}$ ; ventral  $1\frac{3}{5}$ .

Body ornamented by spots of golden forming well-marked longitudinal series. As shown on figure apparently as slightly dark spot to each scale. (Sauvage.)

Seychelles. Valenciennes gives his type secured by Dussumier, as 125 mm. He says the body is greenish, membranous border of opercle orange. Dorsal and anal gray. Caudal deep green. Paired fins golden. No spots on cheek.

Lethrinus xanthochilus Klunzinger

(type Valenciennes)  
Lethrinus xanthochilus KLUNZINGER, Verh. zool. bot. Ges. Wien, vol. 20, 1870, p. 753. Koseir, Red Sea; Fische Roth. Meer., 1884, p. 39, pl. 6, fig. 3 (type).

(1st. para)  
Depth  $3\frac{3}{5}$ ; head  $3\frac{1}{5}$ , upper profile inclined, little arched over eye. Snout  $1\frac{3}{5}$  in head from snout tip; eye  $6\frac{1}{5}$ , 4 in snout, 3 in suborbital depth to maxillary expansion; maxillary reaches half way to eye, length  $2\frac{2}{5}$  in head from snout tip; teeth all conic, 4 canines in front of each jaw, inner band of fine villiform teeth behind canines; interorbital low.

Scales 48 (52 tubular scales on figure); 5 above, 12 below, predorsal forward not quite opposite hind preopercle edge; no postocular scale on figure.

caudal peduncle, each plate furnished with a spine. Short dorsal branch of lateral line usually present. Dorsal spines rather low, joined, both fins depressible in groove. Second dorsal long, usually elevated in front. Anal like second dorsal, nearly as long, preceded by two rather strong spines, base longer than abdomen. Caudal strongly forked. Caudal peduncle very slender. Pectoral falcate. Ventral moderate.

Fishes found in all warm seas, generally brilliant silvery white or with yellow in fins. Some of large size and valued as food and their gum qualities. The species are numerous and often difficult to distinguish.



Black-brown band above middle of forehead and second from front eye edge over middle of snout length. Back clear gold/brown. Three blue-violet bands parallel and above lateral line, uppermost to end of soft dorsal and others to caudal base. Below lateral line each scale row with longitudinal brown line. Length not given; drawing 70 mm. (Steindachner.)

Zanzibar, Madagascar, Persian Gulf. Said to differ from Lethrinus croceopterus Valenciennes by the small eye and more elevated body. It is suggestive of Lethrinus haematopterus except the back anteriorly is not so elevated. The figure by Sauvage seems to agree except the soft anal is lower and the predorsal scales extend forward opposite hind eye edge. This specimen was 270 mm. long.

Lethrinus croceopterus Valenciennes

Lethrinus croceopterus VALENCIENNES, Hist. Nat. Poiss., vol. 6, 1830, p. 302, (Seychelles). SAUVAGE, Hist. Nat. Madagascar, Poiss., 1891, p. 204, pl. 24, figs. 1-1a (type).

Depth  $2\frac{4}{5}$ ; head  $3\frac{1}{5}$ , upper profile very shallowly convex. Snout  $2\frac{1}{10}$  in head; eye  $3\frac{1}{2}$ ,  $1\frac{3}{5}$  in snout, slightly impinging on upper profile, greater than interorbital; maxillary reaches  $\frac{3}{4}$  to eye, length 3 in head; canines very strong (apparently 4 intended in front of each jaw on figure); hind teeth elliptical; interorbital very low.

Scales 46 in lateral line (43 on figure); 5 above, 14 below; predorsal scales extend forward not quite to eye; (postocular scales above preopercle not clearly shown on figure).

The following a doubtful species:

Caranx janthinospilos Bleeker

Caranx janthinospilos Bleeker, Act.  
Ned. Soc. Ind. Neerl. (Amboina),  
vol. 1, p. 45, 1856 (type locality,  
Amboina).

Caranx (Caranx) janthinospilos  
Weber and Beaufort, Fishes Indo  
 Austral. Archipel., vol. 6, p. 259,  
1931 (copied).

Carangus janthinospilos Bleeker,  
Ned. Tyds. Dierk., vol. 1, p. 270, 1863  
(reference).



268  
15 examples. Basa Reef, Gulf of  
Boni, Celebes. December 17, 1909.  
Length 19 to 37 mm.

24081. Labuandata Bay, Gulf of  
Boni, Celebes. February 21, 1908.  
Length 42 mm.

24097. Great Tobea Island, Buton  
Strait. December 15, 1909. Length 47  
mm..

Depth  $3\frac{2}{3}$  to  $3\frac{3}{4}$ ; head  $4\frac{2}{3}$ , front profile strongly declivous. Eye 5 in head, more than half diameter from upper profile of head; jaws equal, upper ends below front part of eye, length  $2\frac{2}{3}$  in head; upper teeth with outer series conic, of which 12 anterior much longer; lower teeth conic, subequal, anterior minute canines; besides vomerine and palatine teeth patches of minute teeth on mucose palatine membrane; tongue with median band of teeth, besides <sup>patches of</sup> minute teeth.

Scales very conspicuous, over 100 in longitudinal line. Lateral line arched to  $\frac{1}{5}$  in soft dorsal, straight section with 30 scutes, depth 9 in body depth.

D. I, VIII — I, 23 or 24, spinous fin much lower than soft fin; A. II — I, 19 or 20, like soft dorsal



emarginate, anteriorly acute, less than twice lower than body; caudal lobes acute, about 5 in body; pectoral much longer than head, falcate, reaches fifth or sixth anal ray; ventral more than twice shorter than head, acute.

Iridescent greenish above, yellowish silvery below. Head, back and sides with small, oblong and rounded spots, widely dispersed, deep violet. Spinous dorsal light hyaline violet. Soft dorsal, anal and caudal light violet anteriorly, with darker margin. Pectoral clear yellowish. Ventral yellowish, anteriorly light violet. Length 449 mm. (Weber and Beaufort.)

East Indies.

# Analysis of Species

- a! Arch of lateral line reaches at least until opposite soft dorsal origin.
- b! Last dorsal and anal rays not subdivided from others.
- c! Breast entirely scaly.
- d! Dorsal rays 19 to 22, anal 15 to 17. sexfasciatus.
- d<sup>2</sup> Dorsal rays 23 to 25, anal 18 to 20.
- e! Scutes 36 to 38; color uniform. melampygus.
- e<sup>2</sup> Scutes 30 to 35; with irregular dark spots, increasing in number and size with age. stellatus.
- f<sup>2</sup> Breast laterally more or less naked, ventrally naked, only small median patch of minute scales before ventrals.
- f! Mouth cleft begins opposite lower third of eye; dorsal rays 20 to 22, anal 16 to 18; scutes



33 to 37.

1469  
xanthopygus.

f.<sup>2</sup> Mouth cleft begins opposite lower eye edge or below level of eye.

g.<sup>1</sup> Scutes 36; dorsal rays 22 or 23, anal 18. sansun.

g.<sup>2</sup> Scutes 28 to 30; dorsal rays 19 to 20, anal 16 or 17. ignobilis.

b.<sup>2</sup> Last dorsal and anal rays little larger than those preceding and partly free. corylaoides guara.

a.<sup>2</sup> Arch of lateral line reaches only far as middle of spinous dorsal; breast entirely naked before line between pectorals and ventrals. bucculentus.

Caranx sexfasciatus Duoy and Gaimard

Caranx sexfasciatus Duoy and Gaimard,  
 Voy. Uranie, Zool., p. 358, pl. 65,  
 fig. 4, 1825 (type locality, "Iles  
 des Papous"). — Cuvier, Hist. Nat.  
 Poiss., vol. 9, p. 83, 1833 (Waigiu;  
 Vanicolo; Batavia). — Bleeker,  
 Nat. Geneesk. Arch. Ned. Indie,  
 vol. 2, p. 517, 1845 (Batavia).

— Sauvage, Hist. Madagascar, Poiss.,  
 p. 327



Labrus carutta Lacépède, Hist. nat. Poiss.,  
vol. 3, 1802, p. 447 (description in key).  
Corvina carutta Cuvier, Hist. nat. Poiss.,  
vol. 5, 1830, p. 124 (Pondichery; Malabar).  
+ Günther, Cat. Fishes Brit. Mus., vol. 2,  
1860, p. 302 (Sea of Tinian). — Day, Fishes  
of Malabar, 1865, p. 51.  $\frac{1}{2}$  Karoli, Termes.  
Füzetek, Budapest, vol. 5, 1881, p. 159  
(Canton).

Sciaena carutta Day, Fishes of India, pt. 2,  
1876, p. 172, pl. 44, fig. 1 (Madras); Fauna  
British India, <sup>Fishes</sup> vol. 2, 1889, p. 122.  $\frac{1}{2}$  Tirant,  
Service Océanogr. Péch. Indo Chine, ~~1929~~,  
6<sup>e</sup> note ~~6~~, <sup>1929</sup> p. 169 (Cochin China).

Corvina carouna Cuvier, Hist. nat. Poiss.,  
vol. 5, 1830, p. 125. Malabar.

— Seale, Occas. Pap. Bishop  
 Mus., vol. 1, no. 3, p. 74, 1900 (1901)  
<sup>— Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 337, 1902.</sup>  
 (Guam). — Jordan and Seale,  
 Bull. Bur. Fisher., vol. 25, p.  
 231, 1905 (1906) (Gaasegase River  
 at Apia; Vailele, Upolu); vol.  
 26, p. 14, 1906 (1907) Cavite). —  
Evermann and Seale, Bull. Bur.  
 Fisher., vol. 26, p. 65, 1906 (1907)  
 (San Fabian). — Seale and Bean,  
 Proc. U. S. Nat. Mus., vol. 33, p. 241,  
 1907 (Zamboanga).

— Seale, Philippine Journ. Sci.,  
 vol. 5, p. 270, 1910.



Johnius carutta Bloch P. 129

Johnius carutta Bloch, Naturgesch.

Nusland. Fische, vol. 7, 1793, p. 133, pl. 356.

Tranquebar.  $\frac{1}{m}$  Schneider, Syst. Ichth.

Bloch, 1801, p. 74 (Tranquebar).  $\frac{1}{m}$  Cantor,

Journ. Asiat. Soc. Bengal, vol. 18, pt. 2,

1849, p. 1048 (Pinang).  $\frac{1}{m}$  Bleeker, Verhandl.

Kon. Akad. Wetensch. Amsterdam, series 3,

vol. 14, 1874, p. 48 (compiled)  $\frac{1}{m}$  Jordan and

Starks, Ann. Carnegie Mus., vol. 11, nos. 3-4,

November 5, 1917, p. 453 (Ceylon).  $\frac{1}{m}$  Fowler,

Journ. Bombay Nat. Hist. Soc., vol. 30, <sup>No. 4</sup> no.

1926, p. 10 (Bombay); Proc. Acad. Nat. Sci.

Philadelphia, 1929 (1930), p. 596 (Shanghai),

p. 611 (Hong Kong).

- Evermann and Seale, Copeia, no. 119, p. 70, June 16, 1923 (Apia, Samoa).
- Waksya, Ann. Carnegie Mus., vol. 15, p. 184, pl. 25, figs. 3-4, 1924 (Tokyo Bay; Kii; Uragina; Ryukyu; Bonin Islands; Formosa).
- Fowler, Bull. Bishop Mus., no. 22, pp. 25, 32, 1925 (Honolulu; Samoa).
- Fowler and Ball, Bull. Bishop Mus., no. 26, p. 12, 1925 (Laysan).
- Fowler, Bull. Bishop Mus., no. 38, p. 12, 1927 (Washington, Christmas and Baker Islands); Journ. Bombay Nat. Hist. Soc., vol. 32, no. 4, p. 707, May 31, 1928 (Ceylon); vol. 33, no. 1, p. 110, September 30, 1928 (Bombay); Mem. Bishop Mus., vol. 10, p. 149, 1928 (Fiji; Tahiti; Sulu; Hanalei; Hawaii; Gilberts; Marshalls; Apia; Tari Tari; Funafuti; Laie Stream; Guam; Tahiti; Strong Island; Funafuti; Waikiki); vol. 11, no. 5, p. 326, 1931 (Honolulu); vol. 11, no. 6,



Silvery, everywhere so clouded with  
brown dots as to quite obscure  
ground color. Vertical fins darker  
than body, except dull blue base of  
spinous dorsal. Length 285 mm. (Agilby).  
New South Wales, Queensland.

p. 404, 1934 (Port Moresby; Teterru,  
Solomons; Samoa; Ontang Java;  
Hawaiian Islands); Proc. Acad.  
Nat. Sci. Philadelphia, vol. 86,  
1934, p. 77 (Savoer, Bali), p.  
444 (Durban, Natal); vol. 87, p.  
140, 1935 (Bangkok; Sriracha; Paknam).



Depth  $3\frac{1}{3}$ ; head  $3\frac{1}{4}$  to  $3\frac{1}{2}$ , width  $1\frac{3}{5}$  to  $1\frac{3}{4}$ . Snout  $3\frac{1}{4}$  in head; eye  $4\frac{1}{3}$  to  $4\frac{2}{5}$ ,  $1\frac{1}{4}$  in snout,  $1\frac{1}{5}$  in interorbital; maxillary reaches  $\frac{1}{2}$  in eye, length  $2\frac{1}{4}$  in head; teeth in narrow bands, villiform, outer upper row enlarged; interorbital  $3\frac{2}{3}$  in head, broadly convex; preopercle with narrow crenulated membranous border. Gill rakers  $5+10$ , short, spinulose,  $\frac{1}{6}$  of eye.

Scales 55 to 58 along above lateral line to caudal base; tubes 46 to 48 in lateral line to caudal base; 7 above, 14 or 15 below; vertical fins nearly scaly to tips.

D. X, I, 28 or 29, second spine  $1\frac{2}{5}$  in head, first ray 3; A. II, 7, second spine 3 or  $1\frac{3}{5}$  in postocular, second ray  $2\frac{1}{5}$  in head; caudal  $1\frac{2}{3}$ , rather broadly convex behind; least depth of caudal peduncle  $2\frac{4}{5}$ ; pectoral  $1\frac{4}{5}$ ; ventral  $1\frac{1}{3}$ , first ray ends in short filament.

Caranx (Caranx) sexfasciatus  
Weber and Beaufort, Fishes Indo-  
Austral. Archip., vol. 6, p. 243,  
 1931 (Sabang; Sias; Batavia;  
 Pandjoh Priok; Lombok; Sumbawa;  
 Flores; Timor; Am; Belitapan;  
 Kota Bharu; Macassar; Selayar;  
 Ponton; Seian; Ambon; Ceram; Waigiu;  
 Beira).

Selar sexfasciatus Oshima, Philippine  
Journ. Sci., vol. 26, No. 3, p. 382, March  
 1925 (compiled).



Cope 129

Johnius novae-hollandiae (Steindachner)  
Sciaena (Corvina) novae-hollandiae

Steindachner, Sitz. Ber. Akad. Wiss. Wien,  
math.-naturw. Klasse, vol. 53, pt. 1,  
1866, p. 445, pl. 5, fig. 2. Port Jackson.

Sciaena novae-hollandiae Gilby, Mem.  
Queensland Mus., vol. 6, December 19, 1918,  
p. 79, pl. 23 (types of Corvina comes and  
Pseudomycterus maccullochi).

Johnius novae-hollandiae Bleeker,  
Verhandel. Kon. Akad. Wetensch. Amsterdam,  
series 3, vol. 14, 1874, p. 41 (Sumatra;  
Borneo); Atlas Ichth. Ind. Néerland.,  
vol. 9, 1877, pl. (2) 387, fig. 1.

Corvina comes De Vis, Proc. Linn. Soc. New  
South Wales, vol. 9, 1884, p. 538. Brisbane  
River, South Queensland.

Pseudomycterus maccullochi Gilby, Proc.  
Royal Soc. Queensland, <sup>vol.</sup> 21, 1908, p. 96. Logan  
River, South Queensland.

Scomber heberi Bennett, Fishes  
of Ceylon, pl. 26, 1830 (type  
locality, Ceylon).

Caranx heberi Bleeker, Verh.  
Batavia. Genoot. (hal. Ichth.  
Bengal), vol. 25, p. 44, 1853  
(reference).

Cuvier, Hist. Nat. Poiss., vol. 9, p. 119,  
1833 (on Bennett).



(compiled), <sup>1</sup>/<sub>2</sub> Day; Fishes of Malabar,  
1865, p. 55 (compiled).

Johnius coitor (not Cuvier) Bleeker,  
Nat. Geneesk. Arch. Nederl. Indie.

(Typog. Batavia), vol. 2, 1845, p. 523  
(Batavia).

Depth  $3\frac{2}{5}$  to  $3\frac{1}{2}$ ; head  $3\frac{1}{3}$  to  $3\frac{4}{5}$ ,  
width  $1\frac{4}{5}$  to 2. Snout  $3\frac{1}{4}$  to  $3\frac{1}{2}$  in head;  
eye  $3\frac{4}{5}$  to  $4\frac{1}{8}$ ,  $1\frac{1}{4}$  to  $1\frac{1}{2}$  in snout,  
equals interorbital; maxillary reaches  
opposite eye center, expansion  $2\frac{1}{5}$  in  
eye, length 3 to  $3\frac{1}{10}$  in head; chin  
with 5 pores; outer row of upper teeth  
slightly enlarged, lower <sup>teeth</sup> uniform;  
interorbital  $3\frac{4}{5}$  to  $4\frac{1}{8}$ , broadly  
convex; preopercle edge flexibly serrate.

Caranx lessonii (Cuvier) Lesson,  
Voy. Cochin, Zool., vol. 2, pt. 1, p.  
155, pl. 31, fig. 1, 1830 (type locality,  
New Guinea). — Cuvier, Hist. Nat.  
Poiss., 9, p. 113, 1833 (Malabar).  
— Bleeker, Verh. Batavia. Genoot.  
(Nat. Ichth. Bengal), vol. 25, p. 44,  
1853 (reference).

Caranx lessoni Waksja, Ann. Carnegie  
Mus., vol. 15, p. 188, pl. 25, fig. 2,  
1924 (Formosa).



4576  
Brown above, below whitish.  
Spinous dorsal, anal and ventral  
more or less blackish terminally,  
other vertical fins dusky terminally.  
Pectoral pale brown. Iris slate.

Natal, India, Andamans, Malayan  
Peninsula, East Indies, Philippines.

52983 and 52984 A. N. S. P. Bombay, India.  
Prof. F. Hallberg. Length 102 to 114 mm.  
1924. Purchased.

Caranx sem Cuvier, Hist. Nat.  
 Poiss., vol. 9, p. 105, 1833 (type  
 locality, Pondicherry). — Jerdon,  
 Madras Journ. Lit. Sci., p. 137, 1851.  
 — Bleeker, Verh. Batavia. Genoot.  
 (Nat. Ichth. Bengal), vol. 25, p. 44, 1853  
 (reference).

— Fowler, Journ. Acad. Nat. Sci.  
 Philadelphia, ser. 2, vol. 12, p. 512,  
 pl. 15, upper figure to left, June 10,  
 1904 (Padang); Proc. Acad. Nat.  
 Sci. Philadelphia, p. 79, Jan.  
 1905 (Padang material).



Gill rakers  $4+9$ , short, lanceolate,  
half of gill filaments, which  $2\frac{2}{5}$  in  
eye.

Scales  $43$  to  $47$  in lateral line to  
caudal base,  $6$  or  $7$  above,  $8$  or  $9$  below,  
 $23$  or  $24$  predorsal. Scales with  $7$  to  $10$   
basal radiating striae;  $31$  to  $37$  apical  
denticles, with  $2$  or  $3$  transverse series  
of basal elements; circuli fine.

D. IX or X, 27, 5 or 30, 5, third spine  
 $1\frac{3}{4}$  to  $2$  in head, first ray  $2\frac{3}{5}$  to  $2\frac{2}{3}$ ;  
A. II, 8, 5 or 9, 5, second spine  $2\frac{1}{8}$  to  $2\frac{1}{4}$ ,  
second ray  $1\frac{1}{2}$  to  $1\frac{3}{5}$ ; caudal  $1$ , cuneate,  
ends in median point; least depth of  
caudal peduncle  $3\frac{1}{5}$  to  $3\frac{1}{4}$ ; pectoral  
 $1\frac{1}{5}$  to  $1\frac{1}{3}$ ; ventral  $1\frac{1}{8}$  to  $1\frac{1}{5}$ , first ray  
ends in filament.

Caranx forsteri Cuvier, Hist. Nat.

Poiss., vol. 9, p. 107, 1833 (type locality, Mauritius; Malabar; Celebes; New Guinea; New Ireland; Vanicolo; East Indies)

— Richardson, Ann. Mag. Nat. Hist., vol. 11, p. 28, 1843.

— Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1109, 1849 (1850) (Pinang Sea).



~~1517~~ ~~small one,~~  
Scales 65 above along lateral line,  
58 along below lateral line; 45 to 48  
in lateral line to caudal base; 8 above,  
16 below; scales ctenoid, except on  
cheeks.

D. X, I, 23 or 24, third to seventh  
spines longest and equal half body depth;  
A. II, 7, second spine  $\frac{2}{3}$  first ray or  $\frac{1}{3}$   
body depth; caudal cuneate in young,  
more obtuse with age; pectoral equals  
head without snout; ventral reaches  
half way to vent, outer ray prolonged.

Silvery gray, abdomen whitish. Cheeks  
tinged golden. Black bands, sometimes  
interrupted, extend over back; first  
from nape passes back and down, ends  
shortly below lateral line; second begins  
opposite fifth to seventh dorsal spines,  
passes back and down to end opposite  
middle of ventral; third arises opposite

— Bleeker, Nat. Tijds. Ned. Indië,  
vol. 2, p. 210, 1851 (Boeloeckomba);  
vol. 3, p. (161) 164, 1852 (Timor  
Kupang; Padang), p. 235 (Amboina),  
p. 409 (Pamangkajene), p. 546  
(Amboina), p. 741 (Kema, Celebes);  
vol. 4, p. 92, 1853 (Amboina);  
vol. 5, p. 154, 1853 (Macassar), pps.  
319, 320 (Amboina), p. 428 (Sambas,  
Borneo), p. 544 (Meauwen Bay,  
Java); Verh. Batavia. Genoot.  
(Nat. Ichth. Bengal), vol. 25,  
p. 44, 1853 (reference); Nat. Tijds.  
Ned. Indië, vol. 6, p. 51, 1854  
(Singapore), p. 90 (Banda Neira),



179 Johnius belangerii (Cuvier)

Corvina belangerii Corvina, Hist. nat.

Pois., vol. 5, 1830, p. 120, Malabar.

Corvina belangerii Valenciennes, Voyage

Ind. Orient. Bilanger, Zool., 1834, p. 357

(East Indies).  $\frac{1}{m}$  Günther, Cat. Fishes Brit.

Mus., vol. 2, 1860, p. 303 (Sea of Pinang).  $\frac{1}{m}$

Day, Fishes of Malabar, 1865, p. 54.  $\frac{1}{m}$  Elera,

Cat. Fauna Filipinas, vol. 1, 1895, p. 502

(Luzon, Santa Cruz, Cavite).

Corvina belangerii Day, Proc. Zool. Soc. London,

1870, p. 684 (Andamans).

Sciaena (Corvina) belangerii Steindachner,

Verhandel. zool. bot. Gesell. Wien, vol. 16,

1866, p. 771 (Calcutta).

Sciaena belangerii Day, Fishes of India,

pt. 2, 1876, p. 191, pl. 44, fig. 5 (India,

p. 204 (Timor Kupang), p. 457  
 (Amboina), p. 518 (Kobor Island);  
 vol. 7, p. 38, 1854 (Kobor Island),  
 p. 226 (Macassar), p. 228 (Manado),  
 p. 312 (Tjiringin, Perdana), p. 361  
 (Batjan); vol. 8, p. 296, 1855  
 (Ternate), p. 345 (Tikoe, Sumatra),  
 p. 393 (Amboina), p. 437  
 (Bonthaian, Celebes); vol. 9, p. 114,  
 1855 (Sumbawa), p. 192 (Batjan),  
 p. 282 (Macassar), p. 492 (Batjan),  
 p. 493 (Amasing and Madawang  
 Rivers, Batjan); vol. 11, p. 253,  
 1856 (Labocha, Batjan), p. 385  
 (Kajeli, Borneo), p. 419 (Muntok,  
 Java); vol. 12, p. 193, 1856 (Ternate),  
 p. 214 (Nias), p. 293 (Boleling, Bali);  
 Act. Soc. Sci. Ind. Neerl., vol. 1, no.  
 3, p. 4, 1856 (Manado), p. 7 (Macassar),  
 p. 31 (Manado); vol. 1, no. 5, p. 6, 1856



scaled basally, also base  $\frac{2}{3}$  of caudal.

D. 8, I, 31, third spine  $1\frac{4}{5}$  in head, fifteenth ray  $2\frac{3}{4}$ ; A. II, 7, second spine strong, 2 in head, subequal with first ray; caudal  $1\frac{2}{5}$ , cuneate; least depth of caudal peduncle  $3\frac{1}{8}$ ; pectoral  $1\frac{3}{5}$ ; ventral  $1\frac{2}{3}$ .

Silvery, darkest above, sides and belly deeply washed with gold, also ventral base, preopercle edge and exposed maxillary. Spinous dorsal dark edged, interspinous membrane powdered rufous brown. Powdering of soft dorsal and caudal confined to stripe along each ray. Length 211 mm. (Gillby.)

Northern Australia.

(Amboina); vol. 2, no. 7, p. 5, 1857  
 (Amboina); nat. Tijds. Ned. Indie,  
 vol. 13, p. 372, 1857 (Xangi, p.  
 384 (Batjan), p. 388 (Timor Deli),  
 p. 478 (Karungbolan, Java);  
 Act. Soc. Sci. Ind. Neerl., vol. 3,  
 no. 4, p. 3, 1857-58 (Manado); vol.  
 3, no. 5, p. 2, 1857-58 (Macassar);  
 vol. 3, no. 9, p. 2, 1857-58 (Padang);  
 nat. Tijds. Ned. Indie, vol. 15,  
 p. 200, 1858 (Goram); vol. 16, p. 29,  
 1858 (Amboina), p. 196 (Sinkaw-  
 wang), p. 434 (Pamangkbat);  
 vol. 17, 1858-59, p. 142 (Baleling,  
 Bali); Act. Soc. Sci. Ind. Neerl.,  
 vol. 5, no. 7, p. 2, 1858-59 (Sinka-  
 wang, Borneo); vol. 5, no. 3, p. 2,  
 1858-59 (Tovariri, Celebes);  
 (Sumatra), vol. 8, p. 12, 1857  
 (Bancoran); nat. Tijds. Ned.



case 29

Johnius leptolepis (Agilby)

Sciaena leptolepis Agilby, Mem. Queensland Mus., vol. 6, December 19, 1918, p. 87, pl. 25.

Coker Island, Northern Territory, Australia.

Depth  $3\frac{2}{5}$ ; head  $3\frac{1}{5}$ , width  $2\frac{1}{5}$ .

Snout 4 in head; eye  $4\frac{3}{4}$ ,  $1\frac{1}{3}$  in snout, greater than interorbital; maxillary reaches  $\frac{3}{5}$  in eye, length  $2\frac{2}{5}$  in head, jaws equal; upper teeth uniserial, conic, lower with similar series of conic teeth behind which second series anteriorly in jaw; interorbital 6 in head, narrow, convex; preopercle finely crenulate, with few small widely separated spines at angle. Gill rakers  $6+10$ , and some rudiments; short, slender,  $\frac{4}{5}$  of eye.

Scales  $8\frac{1}{2}$  along above lateral line to caudal base (figure shows 51 tubular scales in lateral line to caudal peduncle); 11 above, 19 below; soft dorsal finely

Indie, vol. 21, p. 141, 1857 - 60  
 (Batjan, Bali); Nat. Tijds.  
 Ned. Indie, vol. 22, p. 239, 1860  
 (Bali); Verslag. Kon. Akad.  
 Wet. Amsterdam, vol. 12, p. 31,  
 1861 (Singapore); Ned. Tijds.  
 Dierk., vol. 1, p. 152, 1863  
 (Butjan).

— Kner, Reise Novara, Fische, p. 158,  
 1868 (Java; Madras). — Jouan,  
 Mém. Soc. Sci. Nat. Cherbourg, vol.  
 14, p. 298, 1868.

— Sauvage, Hist. Madagascar, Paris,  
 p. 329, pl. 31, fig. 3, 1891 (type; type  
 of C. belangeri), p. 518 (reference).



15-18  
second and third dorsal rays or  
between two dorsal fins, passes down  
parallel to second band; fourth begins  
below center of second dorsal and  
descends to lateral line; fifth  
follows same course below last few  
dorsal rays; sometimes sixth over  
free part of tail. Upper  $\frac{2}{3}$  of first  
dorsal stained black, indistinct with  
age. Caudal slightly tinged with black,  
other fins yellowish. Reaches 305 mm.  
(Day.)

India, Pinang.

Caranx forsteri Cuvier, Hist. nat.  
Pois., vol. 9, p. 107, 1833 (type  
locality, Mauritius; Malabar;  
Celebes; New Guinea; New  
Ireland; Vanicolo; East Indies).  
— Jordan and Seale, Proc. U. S.  
Nat. Mus., vol. 28, (1905) p. 775  
(Negros). — Seale, Occas. Pap.  
Bishop Mus., vol. 4, no. 1, p. 30,  
1906 (Tahiti). — Steindachner,  
Sitzb. Ber. Akad. Wiss. Wien,  
math.-naturw. Kl., vol. 115, pt. 1,  
p. 1403, 1906 (Upolu). —  
Jordan and Seale, Bull. Bur.  
Fisher., vol. 25, p. 230, 1905  
(1906) (Pago Pago; Apia); vol.



155  
vol. 4, 1874, p. 110 (China); Verhandel.  
Kon. Akad. Wetensch. Amsterdam,  
series 3, vol. 14, 1874, p. 46 (Sumatra, Nias,  
Pinang, Singapore; Banka, Java, Borneo,  
Philippines); Atlas Ichth. Ind. Néerland,  
vol. 9, 1877, pl. (4) 387, fig. 1.

Johnius belangeri Kner, Reise Novara,  
Fische, 1866, p. 133 (Java; Manila).  $\frac{1}{m}$   
Fowler, Journ. Bombay Nat. Hist. Soc.,  
vol. 32, no. 2, October 20, 1927, p. 260 (Bombay);  
Mem. Bishop Mus., vol. 10, 1928, p. 235  
(on Day).

Corvina kuhlii Cuvier, Hist. Nat. Poiss.,  
vol. 5, 1830, p. 121. Labouane River, Java.

Corvina lobata Cuvier, <sup>Nist. Nat. Poiss.</sup> ~~spec.~~, vol. 5,  
1830, p. 122, pl. 107. Malabar.  $\frac{1}{m}$  Günther,  
Cat. Fishes Brit. Mus., vol. 2, 1860, p. 304

26, p. 13, 1906 (1907) (Cavite) —  
Jordan and Dickerson, Proc. U. S.  
 Nat. Mus., vol. 34, p. 610, 1908  
 (Suva). — Jordan and Richardson,  
 Bull. Bur. Fisher., vol. 27, p. 250,  
 1907 (1908) (Lubang; Manila;  
<sup>Mem. Carnegie Mus., vol. 4, no. 7, p. 179, 1909 (Keelung).</sup>  
 Iloilo; Cagayan Cello); — Kendall  
 and Goldsborough, Mem. Mus.  
 Comp. Zool., vol. 26, p. 268, 1911  
 (Taritari; Funafuti; Marshalls).  
 — Snyder, Proc. U. S. Nat. Mus.,  
 vol. 42, (1912) p. 496, (Okinawa).  
 — Bean and Weed, Proc. U. S. Nat.  
 Mus., vol. 42, p. 598, 1912 (Batavia).  
 — Weber, Siboga Exped., vol. 57,  
 Fische, p. 395, 1913 (Lombok; Sand-  
 boden; Bima; Flores; Macassar;  
 Siau; Saleyer; Banda Sea).



Bombay).  $\frac{1}{m}$  Johnstone, Fasc. Malayensis,  
Annandale and Robinson, Zool. 2, 1903,  
p. 273 (Patani and Jhering coasts).  $\frac{1}{m}$   
Weber, Nova Guinea, vol. 9, pt. 3, 1913, p.  
588 (Lorents River, Varen River, Vermowai  
River).  $\frac{1}{m}$  Horman, Ann. Mag. Nat. Hist.  
London, series 7, vol. 9, 1922, p. 321.  
 $\frac{1}{m}$  Barnard, Ann. South African Mus., vol.  
21, pt. 2, 1927, p. 572 (Katal coast).  
Sciaena belangeri Day, Fauna British  
India, vol. 2, 1889, p. 120.  $\frac{1}{m}$  Reyan, Trans.  
Zool. Soc. London, vol. 20, pt. 6, 1914, p. 276  
(Mimika River, New Guinea).  
Johnius belangeri Cantor, Journ. Asiatic  
Soc. Bengal, vol. 18, pt. 2, 1849, p. 1047  
(Pinang, Malay Peninsula, Singapore).  
 $\frac{1}{m}$  Bleeker, Nederland. Tijdschr. Dierk.,

- Oshima, Philippine Journ. Sci.,  
vol. 28, no. 3, p. 377, March 3, 1925  
(Keelung; Toko; Tainan; Yilan).
- Barnard, Ann. South African Mus.,  
vol. 21, pt. 2, p. 543, Oct. 1927 (Katal;  
Zululand; Delagoa Bay).
- McCulloch, Austral. Mus. Mem.,  
no. 5, pt. 2, p. 188, Sep. 10, 1929 (reference).



29 examples. Cataingan Bay, Masbate.  
April 17, 1908. Length 67 to 104 mm.  
Male with buccal ova.

16852, 23988, 23989. Cataingan Bay.  
April 18, 1908. Length 76 to 94 mm.

16099, 16100, 16107. Cataingan Bay.  
May 14, 1909. Length 78 to 101 mm.

23196 to 23202. Catbalogan, Samar.

Depth 2 1/3; head 3 1/3. Snout 2 1/5  
in head; eye 4 2/3, 2 1/5 in snout;  
maxillary reaches opposite eye, length  
2 2/3 in head; jaws equal; teeth  
tridentate in outer row and broad  
band of finer inner ones; interorbital  
low; preopercle edge denticulate.

Scales about 116 in lateral line.  
Cheek with small irregular scales to  
preopercle ridge, flange apparently

1486

Selar forsteri Bleeker, Verhand.  
Batavia. Genoot. (makreel.), vol.  
24, p. 57, 1852 (Batavia; Padang).

Carangus forsteri Bleeker, Ned.  
Tijds. Dierk., vol. 1, p. 240, 1863  
(Albi), p. 270 (Atapupu, Timor);  
vol. 2, p. 31, 1865 (Manila Bay).  
— Jordan and Evermann, Bull. U.  
S. Fish Comm., vol. 23, pt. 1, p. 191,  
1903 (1905) (Honolulu; Hilo;  
Waialua; Hanalei and Puako Bays).

Trichopterus forsteri Jordan and  
Starks, Ann. Carnegie Mus., vol. 11,  
p. 442, 1917 (Ceylon).



vol. 26, bundle, 1913, p. 12 (Meekran).

Johnius cantori Bleeker, Verhandel. Kon. Akad. Wetensch. Amsterdam, series 3, vol. 14, 1874, p. 51 (on Cantor).

Depth  $3\frac{1}{2}$  to 4 in total; head  $3\frac{1}{2}$  to  $3\frac{2}{3}$ , width 2. Eye  $4\frac{1}{4}$  to 5 in head,  $1\frac{1}{4}$  in snout, 1 in interorbital; lower jaw shorter than upper, overhung by snout; maxillary reaches  $\frac{1}{2}$  to  $\frac{2}{3}$  in eye; transverse row of 4 pores across snout, free edge of skin with 5 pores and lateral lobe; central pore below, mandibular symphysis with 2 more either side; teeth villiform, upper with outer row of conical curved ones most developed near median line; lower teeth in several rows above symphysis, laterally inner row of enlarged curved teeth; Preopercle with 6 wide set rather strong denticles at angle, lower edge crenulate in young.

Caranx peronii Cuvier, Hist. nat.  
Pois., vol. 9, p. 112, 1833 type locality,  
Manicolo; Amboina; Java; Malabar;  
East Indies. — Bleeker, Verh.  
Batavia, Genoot. (hal. Ichth.  
Bengal), vol. 25, p. 44, 1853  
reference.



Cuv<sup>129</sup>

1575

Johnius maculatus Schneider

Johnius maculatus Schneider, Syst.

Ichth. Bloch, 1801, p. 75. Trangular.  $\frac{1}{m}$

Cantor, Journ. Asiatic Soc. Bengal, vol.

18, pt. 2, 1849, p. 1050 (Pinang).  $\frac{1}{m}$  Blyth,

Journ. Asiatic Soc. Bengal, vol. 29, 1860,

p. 141 (Sitang River; not synonymy).  $\frac{1}{m}$

Jordan and Starks, Ann. Carnegie

Mus., vol. 11, no. 3-4, November 5, 1917, p.

453 (Ceylon).

Corvina maculata Cuvier, Hist. Nat. Poiss.,

vol. 5, 1830, p. 126 (Pondichery).  $\frac{1}{m}$  Jordan,

Madras Journ. Literat. Science, 1851, p.

132.

Sciaena maculata Günther, Cat. Fishes Brit.

Mus., vol. 2, 1860, p. 241 (compiled).  $\frac{1}{m}$  Day,

Fishes of India, pt. 2, 1876, p. 190 (note on

Cantor's specimen); Fauna British India,

Fishes,

vol. 2, 1889, p. 119.  $\frac{1}{m}$  Zugmayer, Abhandl. Kon.

Bayer. Akad. Wiss., math.-physik. Klasse,

Caranx belengerii Cuvier, Hist.  
Nat. Paris., vol. 9, p. 116, 1833 (type  
locality, Malabar). — Bleeker,  
Verh. Batavia. Genoot. (Nal.  
Delith. Bengal), vol. 25, p. 44, 1853  
(reference).



21864. Biri Channel, east coast of Luzon.  
June 1, 1909. Length 106 mm.

16108. Bolalo Bay, Palawan Island.  
December 21, 1908. Length 87 mm.

14805 to 14807, 15560 to 15562, 15564, 15566.  
Bugsuk Island, Balabac: January 5,  
1909. Length 76 to 102 mm.

15310, 15311, 15314, 16779, 23710, 23711.  
Busin Harbor, Burias Island. March  
8, 1909. Length 81 to 98 mm.

22281, 22283, 23426, 23427. Butauanan  
Island, east coast of Luzon. June 13,  
1909. Length 94 to 97 mm.

14251 and 14255. Pandaraman Island,  
Balabac. January 4, 1909. Length 52 to  
56 mm.

Scomber hippox (not Linnaeus)  
Lichtenstein, descript. Animal.,  
Forster, pp. 155, 199, 1844 (tropical  
 Pacific, Tahiti).

Caranx hippox Günther, Cat. Fish.  
Brit. Mus., vol. 2, p. 449, 1860  
 (Madagascar; Natal; China; Amoy;  
 Yanna; Ceylon; Pinang Sea; Port  
 Essington). — Day, Fishes of Malabar,  
 p. 86, 1865. — Günther, Trans. Zool. Soc. London,  
 vol. 6, p. 431, 1866.  
 — Playfair, Fishes of Zanzibar, p. 61,  
 1866 (Aden; Zanzibar).

— Günther, Journ. Mus. Godeffroy, vol. 5,  
 pt. 11, p. 131, pl. 84, 1876 (Samoa; Tahiti).  
 — Day, Fishes of India, pt. 2, p. 216,  
 1876. — Peters, Monatsb. Akad. Wiss.  
Berlin, p. 36, 1876 (1877) (New Britain).  
 — Martens, Preuss. Exped. Ost Asien, vol. 1, p.  
 391, 1876 (Laguna de Taal, Luzon).



203  
toward hatching. All these appear  
to males. They were easily recognized  
among the series of specimens by their  
rather full throats.

- Günther, Rep. Voy. Challenger, vol. I, pt. 6, pp. 58, 59, 1880 (Tapeete, Tahiti; Hilo). — Károli, Termesz. Füzetek, Budapest, vol. 5, p. 160, 1881 (Singapore).
- Macleay, Proc. Linn. Soc. New South Wales, vol. 5, pt. 4, p. 535, 1881 (Australia); vol. 7, p. 355, 1882 (New Guinea).
- Meyer, Anal. Soc. Españ. Hist. Nat. Madrid, vol. 14, p. 20, 1885 (Mindanao, Celebes, Cebu).
- Day, Fishes of India, Suppl., p. 789, 1888; Fauna British India, Fishes, vol. 2, p. 154, 1889.
- Sauvage, Hist. Madagascar, Poiss., p. 325, pl. 12a fig. 2, 1891 (types of Caranx sexfasciatus <sup>and</sup> C. peronii), p. 518 (reference).



some dull orange spots on the lower side of the head and 3 rows of scales on the cheek. Bleeker's figure of Amia moluccensis is without any of the usual markings, the spinous dorsal terminally blackish and the cheek with 4 rows of scales. An examination of the example reported as ~~Amia~~ Amia ~~fusca~~ and figured by Jordan and Seale shows it to belong to something different.

Four of our examples from the Cataingan Bay series, 91 to 108 mm. long, taken April 17, 1908, show them to belong to the peculiar condition of buccal incubation. Each has its mouth and pharynx crammed with eggs, some in a well developed stage

~~Caranx hippos~~ (~~utlinatus~~)  
 — clera, Cat. Fauna Filipinas, vol.  
 1, p. 510, 1895 (Luzon; Cebu;  
 Laguna de Taal; Batangas).

— Pellegrin, Bull. Mus. Hist. Nat.  
 Paris, vol. 18, p. 206, 1912 (Port  
 Sandwich, New Hebrides).



1372  
and below silvery. Iris yellow. Fins  
yellowish. Length  $7\frac{1}{2}$  mm. (Bleeker.)

Borneo. Recorded from Samar by Elera.  
Bleeker had but one specimen.

Caranx hippus Klunzinger, Verh.  
zool. bot. Gesell. Wien, vol. 21, p.  
 465, 1871 (Red Sea); Sitzb. Ber.  
Abad. Wiss. Wien, math.-naturw. Kl.,  
 vol. 80, pt. 1, p. 377, 1879 (1880)  
 (Cleveland Bay). Fische Roth.  
Meer., vol. 1, p.

Caranx (Caranx) hippus Klunzinger,  
Fische Roth. Meer., vol. 1, p. 100, 1884.



than pupil and just above tubes  
of lateral line. Median dark  
predorsal line from origin of spinous  
dorsal forward to middle of interorbital.  
Dorsals grayish brown, also caudal,  
other fins paler to whitish. Larger  
dorsal and anal spines burnished  
with silvery.

Red Sea, Natal, East Indies, Philippines,  
Micronesia, Polynesia.

Our numerous examples all agree in  
the type of coloration described above.  
In this they differ from Bleeker's  
figure of Amia chrysopomus as that  
shows only one dark longitudinal line,  
which extends from above the eye to the  
caudal peduncle above. Also he shows

Caranx flavoceruleus Schlegel,  
Fauna Japonica, Poiss., pts. 5-6,  
 p. 110, pl. 59, fig. 2, 1844 (type  
 locality, South west coast of Japan).

Caranx flavoceruleus

— Jordan and Snyder, Annot.  
Zool. Japon., vol. 3, p. 67, 1901  
 (reference). — Snyder, Proc.  
U. S. Nat. Mus., vol. 42, 1912, p.  
 411 (Kagoshima).

Caranx flavo-ceruleus Bleeker,  
Verh. Batavia. Genoot. (Nat. Ich.  
 Japon.), vol. 25, p. 14, 1853 (reference).



Cuv 179

Johnius osseus (Day)

Neuena ossea Day, Fishes of India, pt. 2, 1876, p. 193, pl. 46, fig. 3. Malabar coast of India; Fauna British India, vol. 2, 1889, p. 123.

Bola ossea Jordan and Starks, Ann.

Carnegie Mus., vol. 11, no. 3-4, November 5, 1917, p. 453 (Ceylon).

Depth  $3\frac{3}{4}$ ; head  $3\frac{1}{3}$ . Snout 5 in head; eye 5, 1 to  $1\frac{1}{4}$  in snout,  $1\frac{1}{2}$  in interorbital; jaws nearly even; maxillary reaches opposite hind eye edge, length  $2\frac{1}{5}$  in head; 3 small pores across snout, 5 along free edge of skin but no lateral lobe; 2 small central pores below symphysis of mandible and 2 more large ones laterally and posteriorly; teeth villiform, outer upper row enlarged; interorbital low; preopercle rather strongly denticulate whole extent.

Caranx parapistes Richardson,  
Voy. Erebus and Terror, Fishes,  
p. 136, pl. 58, figs. 6-7, 1848 (type  
locality, Jones Strait; Port  
Essington).



line large, simple, well exposed  
and crenulate basal scale. ~~each~~  
~~side~~ Scales with 13 to 18 basal radiating striae;  
102 to 157 ~~with~~ apical denticles, with 1  
to 3 transverse series of basal elements;  
circuli fine and apical obsolete or  
anastomosing irregularly.

D. VII - I, 9, I, third spine  $1\frac{3}{4}$  to  $1\frac{7}{8}$   
in total head length, first branched  
ray  $1\frac{1}{3}$  to  $1\frac{2}{5}$ ; A. II, 8, I, second spine  
 $2\frac{2}{3}$  to 3, second anal ray 2 to  $2\frac{1}{10}$ ;  
caudal  $1\frac{1}{5}$  to  $1\frac{1}{4}$ , hind edge slightly  
emarginate, upper lobe often little  
longer; least depth of caudal peduncle  
2 to  $2\frac{2}{5}$ ; pectoral  $1\frac{1}{2}$  to  $1\frac{3}{5}$ ; ventral  
 $1\frac{2}{3}$  to  $1\frac{7}{8}$ .

Light brown generally, becoming

Carany puapok Thiollière, Fauna  
Woodlark, p. 173, 1857 (type-  
locality, Woodlark Island).

Carany papuensis Alleyne and  
Macleay, Proc. Linn. Soc. New  
South Wales, vol. 1, p. 325, pl. 10,  
fig. 3, 1876 (type locality, Hall  
Sound, British New Guinea).

— McCulloch, Mem. Queensland  
Mus., vol. 8, pt. 1, p. 64, p. 13,  
January 30, 1924 (type; Solomons).



1544

Scales 55 along above lateral line to caudal base, 45 along below; 6 above, 15 below; cycloid on head and chest, ctenoid on body; small scales on anal membranes over basal half (apparently also on soft dorsal according to figure).

D. X, I, 25, second spine  $2\frac{1}{4}$  in head, first ray  $3\frac{2}{3}$ , twenty second ray  $2\frac{2}{3}$ ; A. II, 7, second spine short,  $4\frac{1}{5}$  in head or  $2\frac{1}{4}$  in postocular, first ray  $2\frac{2}{3}$  in head; caudal  $1\frac{1}{4}$ , cuneate; least depth  $3\frac{1}{8}$ ; pectoral  $1\frac{1}{2}$ ; ventral  $1\frac{3}{5}$ .

Brownish gray or stone colored along back, becoming dull white on sides and below. Opercle bluish black. First dorsal black on upper half, outer edges of caudal, anal and paired fins gray. Length 175 mm. (Day.)

Malabar coast of India.

Caranx carangus (not Bloch,  
Sauvage, Hist. Madagascar, Poiss.,  
p. 325, 1891 (part)).



paler to whitish below, especially  
on abdomen and lower surface of  
head. Head largely brownish above.  
Iris pale or whitish to deep neutral  
gray, with dark lateral band crossing.  
Dark brown line follows along edge of  
back along bases of both dorsals.  
Second narrow dark brown line  
from above eye, <sup>anteriorly</sup> to upper surface of  
caudal peduncle anteriorly, where  
fading out. Third broad horizontal <sup>deep brown</sup>  
band from snout tip through eye and  
midway along side to caudal base,  
though behind eye band narrowing  
considerably and fading behind. At  
caudal base and slightly above middle  
small round black spot, much smaller

Caranx latus (not Agassiz)  
Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, p. 501, 1900  
(Honolulu).

Carangus latus Jenkins, Bull. U.  
S. Fish Comm., vol. 22, p. 444, 1902  
(1903) (Honolulu).



278

depth  $2\frac{3}{5}$  to  $2\frac{7}{8}$ ; head  $2\frac{1}{2}$  to  $2\frac{3}{5}$ ,  
width  $1\frac{7}{8}$  to 2. Snout 4 to  $4\frac{1}{5}$  in head  
~~from snout tip~~; eye  $2\frac{1}{2}$  to 3, greater  
than snout or interorbital; maxillary  
reaches opposite eye center, expansion  
 $2\frac{3}{4}$  in eye, length  $2\frac{1}{10}$  to  $2\frac{1}{3}$  in head;  
bands of villiform teeth in jaws, on vomer  
and palatines; interorbital 4 to  $4\frac{1}{4}$ ,  
nearly level; preopercle ridge entire,  
edge minutely serrate at all ages;  
preorbital edge entire. Gill rakers  
6 + 14, lanceolate, longer than gill filaments  
or 3 in eye.

Scales 23 in lateral line to caudal  
base and 5 or 6 more on latter, 2  
above, 6 below, 2 to 4 predorsal,  
2 rows on cheeks. Tubes in lateral

Carangus elacate Jordan and  
Evermann, Bull. U. S. Fish Comm.,  
vol. 22, p. 177, 1902 (1903) (type  
locality, Honolulu); vol. 23, pt. 1,  
p. 190, pl. 31, 1903 (1905) (type).

Caranx elacate Fowler, Mem. Bishop  
Mus., vol. 10, p. 147, pl. 13, A, 1928  
(Honolulu; type).

Caranx semisomnus Fowler, Journ.  
Acad. Nat. Sci. Philadelphia, ser.  
2, vol. 12, p. 510, pl. 14, upper fig.,  
1904 (type locality, Padang,  
Sumatra).



eye edge, length 2 in head; band of fine upper teeth with outer row little enlarged, all lower teeth uniformly smaller; interorbital 4, little convex; hind preopercle edge denticulate.

Scales 45 along above lateral line to caudal base, 40 along below; 6 above, (7 below on figure; 6 rows on cheeks; soft vertical fins largely scaly over basal half of each).

D. X, I, 28 or 29 (figure shows 26, I, second spine  $1\frac{2}{3}$  in head, first ray  $3\frac{2}{3}$ ; A. II, 8, I, second spine 3, fourth ray  $2\frac{1}{8}$ ; caudal  $1\frac{1}{3}$ , cuneate, with broad median point behind; least depth of caudal peduncle  $3\frac{3}{5}$ ; pectoral  $1\frac{1}{2}$ ; ventral  $1\frac{3}{5}$ ).

Above bluish or greenish gray, sides

Carangus marginatus (not Gill)  
Jenkins, Bull. U. S. Fish Comm.,  
vol. 22, p. 444, 1902 (1903) (Honolulu).  
— Jordan and Evermann, Bull.  
U. S. Fish Comm., vol. 23, pt. 1,  
p. 191, 1902 (1903) (Honolulu).



275

Amia fusca (Duoy and Yarniard)

Apogon fuscus Duoy and Yarniard, Voy.  
Iranie, Zool., pts. 8-9, Jan. 29 - May 26, 1825,  
p. 345. Guam. — Günther, Journ. Mus.  
Godeffroy, vol. 1, pt. 1, 1873, p. 22 (East  
Indies and Fiji).

Amia fusca Jordan and Seale, Bull. Bur.  
Fisher., vol. 25, 1905 (1906), p. 244, fig. 38  
(Upia).

Apogon cupreus (Ehrenberg) Cuvier, Hist. Nat.  
Poiss., vol. 2, 1828, p. 159. Red Sea. — Günther,  
Cat. Fishes Brit. Mus., vol. 1, 1859, p. 237 (copied).

Apogon moluccensis Valenciennes, Nouv. Ann.  
Mus. Hist. Nat. Paris, <sup>vol. 1,</sup> 1832, p. 54. Amboina.  
— Weber, Siboga Exped., vol. <sup>57, Fische,</sup> 65, 1913, p. 229  
(Kawa, west Ceram).

[? Apogon guamensis Valenciennes, Nouv.  
Ann. Mus. Hist. Nat. Paris, vol. 1, 1832,  
p. 54. Guam.]

Caranx marginatus ~~marginatus~~

Fowler, Proc. Acad. Nat. Sci.

Philadelphia, p. 81, Jan. 1905

(Honolulu). — Jordan and

Seale, Bull. Bur. Fisher., vol. 25,

p. 231, 1905 (1906) (Samoa).

— Jordan and Jordan, Mem. Carnegie  
Mus., vol. 10, no. 1, p. 39, Dec. 1922  
(reference).

— E. K. Jordan, Proc. U. S. Nat. Mus.,  
vol. 66, art. 33, p. 15, 1905 (Honolulu).



Amia moluccensis Bleeker, Atlas Ichth.

Ind. Néerl., vol. 7, 1873-76, p. 93 (Sumatra, Singapore, Banka, Cocos, Bawean, Bali, Celebes, Sangir, Timor, Cram, Amboina, Goram); ~~vol. 8, 1876-77, pl. (44) 347, fig. 1.~~

Apogon chrysopomus Bleeker, Nat. Tijds.

Ned. Indië, vol. 7, 1854, p. 239. Macassar, Celebes. — Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 240 (copied). — Károli, Termesz. Füzetek, Budapest, vol. 5, 1882, p. 152 (Singapore).

Amia chrysopoma Bleeker, Atlas Ichth.

Ind. Néerl., vol. 7, 1873-76, p. 86 (Singapore, Bawean, Celebes, Amboina); vol. 8, 1876-77, pl. (71) 349, fig. 1. — Evermann and Seale, Bull. Bur. Fisher., vol. 26, 1906 (1907), p. 72 (Bacon).

Caranx thompsoni (Seale) Jordan  
and Evermann, Bull. U. S. Fish.  
Comm., vol. 23, pt. 1, p. 535, 1903 (1905)  
(type locality, Hawaiian Islands).  
— Jordan and Seale, Bull. Bur.  
Fisher., vol. 25, p. 230, 1905 (1906)  
(Hawaii). — Jordan and Snyder,  
Bull. Bur. Fisher., vol. 26, p. 210,  
1906 (1907) (note).



1510  
Cuv 179 Johnius borneensis (Bleeker)

Otolithus borneensis Bleeker, Natuurk.

Tijdschr. Nederl. Indië, vol. I, 1850,  
p. 268. Bandjermassing, in rivers, Borneo.

Scaena borneensis Günther, Cat. Fishes

Brit. Mus., vol. 2, 1860, p. 294 (compiled).

Elera, Cat. Fauna Filipinas, vol. 1, 1875,  
p. 501 (Samar).

Pseudoscaena borneensis Bleeker, Verhandel.

Kon. Akad. Wetensch. Amsterdam, series 3,  
vol. 14, 1874, p. 36 (Borneo); Atlas Ichth.

Ind. Néerl., vol. 9, 1877, pl. (2) 385,

fig. 4.

Johnius borneensis Seale, Philippine Journ. Sci., vol. 5,  
No. 4, Oct. 1910, p. 279 (Sandakan, Borneo).

Depth  $3\frac{1}{3}$ ; head 3, width 2. Snout 4 in  
head; eye 4, equals snout or interorbital;  
maxillary nearly reaches opposite hind

Caranx oshimai Wakaya, Ann.

Carnegie Mus., vol. 15, p. 189, pl.

27, fig. 1, 1924 (type locality, Formosa).



5177 and 5178. Alibijaban Island,  
Ragay Gulf, Luzon. March 6, 1909.  
Length 50 to 55 mm.

15756 and 23378. Alimango Bay,  
Burias Island. March 5, 1909.  
Length 39 to 46 mm.

19640. Buluan Island, Samales Group,  
south of Zamboanga. (Length 56 mm.)  
September 13, 1909. v

7243 and 7244. Busbus Point, Siasi  
Island, between Jolo and Jawi Jawi.  
September 20, 1909. Length 44 to 60 mm.

15099 and 15100. Capulagan Bay,  
Pagbilao Island. February 24, 1909.  
Length 52 to 54 mm.

23646. Caracaran, Batan Island.  
June 8, 1909. Length 65 mm.

15060, 23094, 24094. Cammahala Bay,  
Ragay Gulf, Luzon. March 11, 1909. Length  
57 to 58 mm. Two males with buccal ova.

Depth  $2\frac{1}{2}$  to  $2\frac{2}{3}$ ; head  $2\frac{3}{4}$  to  $3\frac{1}{4}$ ,  
width  $2\frac{1}{5}$  to  $3\frac{1}{6}$ . Snout  $3$  to  $3\frac{1}{2}$   
in head from snout tip; eye  $4$   
to  $8\frac{1}{2}$ ,  $1$  to  $2\frac{4}{5}$  in snout,  $1$  to  $1\frac{2}{5}$   
in interorbital, with broad  
adipose lids; maxillary reaches  
<sup>to  $\frac{2}{5}$  eye diameter beyond eye with age,</sup>  
 $\frac{1}{2}$  to  $\frac{3}{4}$  in eye, expansion  $1\frac{1}{3}$  to  
 <sup>$1\frac{1}{5}$  times eye with age,</sup>  
 $1\frac{3}{4}$  in eye, length  $2$  to  $2\frac{1}{10}$  in  
head from snout tip; interorb-  
ital  $3\frac{1}{8}$  to  $4$ , convexly elevated.  
Gill rakers  $7 + 15$  to  $18$ ,  
lanceolate, equals gill filaments  
or  $1\frac{2}{5}$  in eye.

Scales  $43$  or  $44 + 30$  or  $31$  in  
lateral line, arch  $1\frac{2}{5}$  to  $1\frac{1}{2}$  in  
straight section; scute depth  
 $1\frac{7}{8}$  to  $2$  in eye. Breast densely  
scaly. Circuli  $13$  to  $30$ , complete.



D. I, VIII, I, 18, I to 20, I, fourth spine  $2\frac{1}{3}$  to  $3\frac{1}{3}$  in total head length, first branched ray  $1\frac{9}{10}$  to 2; A. II - I, 14, I to 16, I, second spine  $2$  to  $2\frac{1}{3}$ , first branched ray  $1\frac{3}{4}$  to  $2\frac{1}{10}$ ; caudal  $1\frac{1}{8}$  to  $1\frac{2}{5}$ , strongly forked; least depth of caudal peduncle  $6\frac{1}{2}$  to  $7\frac{1}{4}$ ; pectoral  $1$  to  $1\frac{1}{10}$ , rays II, 16, length  $2\frac{1}{4}$  to  $4$  in fish without caudal, reaches fourth to sixth scute of lateral line; ventral  $2\frac{1}{6}$  to  $2\frac{1}{5}$  in total head length, rays I, 5.

Back brown, below silvery white. Back and sides with 6 or 7 broad darker vertical bands, broader than interspaces,

fading with age. Iris white to gray. Mandible tip brownish. Spinous dorsal neutral dusky. Soft dorsal and caudal with pale gray marginally, otherwise pale or whitish like other fins.

Red Sea, Arabia, Zanzibar, Beira, Delagoa Bay, Natal, Madagascar, Mayotte, Bourbon, India, Ceylon, Andamans, Nicobars, Malaya, East Indies, Philippines, China, Formosa, Riu Kiu, Japan, Northern Australia, Queensland, Melanesia, Micronesia, Polynesia, Hawaii.



22089. Abuyog, Leyte. July 26, 1907.<sup>1506</sup>  
Length 90 to 100 mm. Four examples.  
A. II - I, 17 or 18.

8084. Alimango Bay, Burias  
Island. March 5, 1909. Length 525 mm.

Six examples. Atulayan Bay,  
Luzon. June 17, 1909. Length 88 to  
110 mm.

12715<sup>12716</sup>, Atulayan Bay, Luzon.  
June 18, 1909. Length 90<sup>to 104</sup> mm. A. II - I, 17.

14032 to 14037, 14039, 20258,  
22752 to 22753. Baganga Bay.  
May 13, 1908. Length 52 to 180 mm.  
A. II - I, 16 to 18.

5463, 9886. Basud River, Luzon.  
June 15, 1909. Length 118 to 200 mm.  
A. II - I, 16.

16596, 16597. Beacon Reef.  
Catbalogan, Samar. April 16, 1908.  
Length 173 to 186 mm. A. II - I, 16.

~~52985~~

vertical fins all more or less dusky  
to dusky gray terminally. Paired fins  
pale, sometimes sprinkled with dark  
dots. Pectoral with gray blotch within  
axil close behind origin of fin.

India, Malay Peninsula, Singapore,  
Indo China. According to Day it  
attains a large size. Known chiefly  
by its pale yellowish gray color.

3 examples. A. N. S. P. Bombay.

Bombay Natural History Society. 1925.  
Length 173 to 203 mm.

52986 to 52989 A. N. S. P. Bombay.

Prof. F. Hallberg. 1923. Length 70 to 114 mm.



20283. Below mouth of  
Mindanao River, Cotabato.  
May 20, 1908. Length 74 mm.  
A. II - I, 17.

12087 [747]. Cavite market.  
December 1, 1908. Length 140 mm.

A. II - I, 16. a. II - I, 18. [1874]  
=13865. Cebu market. August 31, 1909. Length 73 mm.  
7547, 11724. Cotabato, Mindanao.

May 20, 1908. Length 80 to 125 mm.  
Three examples. A. II - I, 17.

21350, 22164. Iavao, Mindanao.  
May 16, 1908. Length 60 to 129 mm.  
A. II - I, 16 or 17.

20481, 20482. Endeavour Strait,  
Palawan. December 22, 1908.  
Length 82 to 84 mm. A. II - I, 16.

8402. Giant River, Port Dupon,  
Leyte. March 16, 1907. Length 268 mm.  
9094 to 9096. Gigoro Point, Dinapundan  
Bay, Samar. July 28, 1907. Length  
274 to 375 mm.

forward nearly to snout tip. Scales with 7 to 9 basal radiating striae; 18 to 35 apical denticles, with 8 to 11 transverse series of basal elements; circuli very fine.

D. XI, 7, I to 32, I, second spine  $1\frac{3}{5}$  to  $1\frac{3}{4}$  in head, third ray  $2\frac{2}{5}$  to  $2\frac{1}{2}$ ; A. II, 7, I, second spine  $2\frac{1}{10}$  to  $3\frac{3}{4}$ , first ray  $1\frac{1}{2}$  to  $1\frac{3}{4}$ ; caudal 1 to  $1\frac{1}{2}$ , cuneate, rounded behind, lower median rays longest; least depth of caudal peduncle  $3\frac{1}{4}$  to 4; pectoral  $1\frac{1}{5}$  to  $1\frac{1}{2}$ ; ventral  $1\frac{1}{5}$  to  $1\frac{4}{5}$ , first ray ends in short filament.

mauve brown above or back vinaceous buff to buff below, under surface whitish. Iris pale to slate. Inside gill opening neutral dusky. Opercle neutral or slate brown. Spinous dorsal dusky or neutral dusky terminally. Soft dorsal and caudal grayish, other fins whitish. Sometimes



~~598. Mindra Island. September  
20, 1909. Length 920? mm, caudal  
tips broken.~~

6034. Hinunangan Beach,  
Leyte. July 30, 1909. Length 117  
mm.  $\underline{\text{A. II}} - \underline{\text{I}}, 17$ .

19398, 19400. Iloilo market.  
March 28, 1908. Length 75 to 78 mm.  
 $\underline{\text{A. II}} - \underline{\text{I}}, 16$ .

20019. Langa Point, Cavite.  
March 23, 1908. Length 70 mm.  
 $\underline{\text{A. II}} - \underline{\text{I}}, 16$ .

20197. Langley Point, Cavite.  
March 23, 1908. Length 79 mm.  
 $\underline{\text{A. II}} - \underline{\text{I}}, 17$ .

5243 to 5245. Malabang,  
Mindanao. May 21, 1908. Length 77  
to 84 mm.  $\underline{\text{A. II}} - \underline{\text{I}}, 16$  or 17.

22465, 22466. Malagao, Mindoro.  
December 11, 1908. Length 64 to 68 mm.  
 $\underline{\text{A. II}} - \underline{\text{I}}, 15$  and 17.

Johnius glaucus Fowler, Journ. Bombay  
Nat. Hist. Soc., vol. 30, No. 4, November  
1926, p. 10 (Bombay); vol. 32, No. 2,  
October 20, 1927, p. 260 (Bombay).

Depth  $2\frac{4}{5}$  to  $3\frac{3}{4}$ ; head  $2\frac{7}{8}$  to  $3\frac{1}{2}$ ,  
width  $1\frac{3}{4}$  to 2. Snout  $3\frac{1}{8}$  to  $3\frac{3}{4}$  in head;  
eye  $3\frac{1}{2}$  to  $4\frac{1}{3}$ , 1 to  $1\frac{2}{5}$  in snout, 1 to  $1\frac{1}{4}$   
in interorbital; maxillary reaches  $\frac{2}{5}$   
to  $\frac{1}{2}$  in eye, expansion  $1\frac{4}{5}$  to 2 in eye,  
length  $2\frac{1}{5}$  to  $2\frac{4}{5}$  in head; chin with 5  
pores; mandibular teeth in villiform  
band, with inner posterior little larger;  
interorbital  $3\frac{1}{2}$  to  $4\frac{1}{4}$ , broadly convex;  
preopercle edge membranous or denticulate.  
Gill rakers 5 or 6 + 12 or 13, lanceolate,  
short,  $\frac{1}{2}$  gill filaments which  $\frac{1}{2}$  eye.

Scales 45 to 50 <sup>along above</sup> ~~in~~ lateral line to  
caudal base and 5 more on latter; <sup>scales 48 in lateral line to caudal base,</sup> each  
tube with short branch above and below;  
6 scales above, 7 to 9 below, 19 to 25 predorsal



1509

Four examples. Manila Bay.  
December 9, 1907. Length 75 to 93 mm.

20703. Manila Harbor.  
March 16, 1908. Length 55 mm.

13782. Manila market. June 24,  
1908. Length 155 mm. A. II - I, 15.

6971. Manila market. April 29,  
1909. Length 418 mm.

7302, 21150. Mansalay, Mindoro.  
June 4, 1908. Length 75 to 138 mm.  
Six examples. Two with A. II - I, 17.

6221, 19723. Mantaguin Bay,  
Palawan. April 2, 1909. Length 111 to  
123 mm. A. II - I, 16 or 17.

13784, 13784, Mati, Pujada Bay,  
Mindanao. May 15, 1908. Length  
105 to 158 mm. A. II - I, 16 or 17.

Six examples.

8601 to 8604. Matnog Bay.  
May 31, 1909. Length 278 to 308 mm.

9350. Murcielago Bay, Mindoro. August  
20, 1909. Length 365 mm.

1525  
Cuv<sup>179</sup> Johnius dussumieri (Cuvier)  
Corvina dussumieri Cuvier, Hist. Nat. Poiss.,  
vol. 5, 1830, p. 118. Malabar. — Valenciennes,  
Règne Animal, Cuvier, Ed. Ill., 1839, pl.  
28, fig. 2.

Johnius dussumieri Cantor, Journ. Asiatic  
Soc. Bengal, vol. 18, pt. 2, 1849, p. 1046  
(Pinang, Malay Peninsula, Singapore).  
— Bleeker, Verhandel. Kon. Akad. Wetensch.  
Amsterdam, vol. 14, series 3, 1874, p. 49  
(compiled).

Sciaena glaucus Day, Fishes of India, pt. 2,  
1876, p. 192, pl. 46, fig. 2. India. — Johnstone,  
Fasc. Malayensis, Annandale and Robinson,  
Zool., vol. 2, 1903, p. 293 (outside Putani  
Bay). — Pellegrin, Bull. Soc. Zool. France,  
vol. 30, 1905, p. 84 (Baie de Alag, Tonkin).

→ Sciaena glauca Day, Fauna British India, <sup>Fishes</sup>  
vol. 2, 1889, p. 122. — Pearson, Ceylon Administr.  
Rep., 1915-18, p. F14.

→ Sciaena glaucus Pearson, op. cit., 1915-18, p. F13.  
(Error.) Ceylon. Administr. Rept.



9351, 9352. Murcielagos Bay.  
August 21, 1909. Length 455 to 475  
mm.

9040. Habatas Point, Samar.  
July 24, 1909. Length 343 mm.

20329, 20331. Nanjan River, Mindoro.  
June 5, 1908. Length 60 to 68 mm.  
 $\underline{\underline{A. II}} - \underline{\underline{I}}, 17.$

Two examples. Nuto River tidal.  
June 18, 1909. Length 65 to 98 mm.  
 $\underline{\underline{A. II}} - \underline{\underline{I}}, 16 \text{ or } 17.$

11970. Lomuan River, Camp Overton,  
Mindanao. August 6, 1909. Length  
208 mm.  $\underline{\underline{A. II}} - \underline{\underline{I}}, 16.$

20658. North end of Endeavour Strait,  
Palawan. December 22, 1908. Length  
84 mm.  $\underline{\underline{A. II}} - \underline{\underline{I}}, 16.$

20404. Palawan Reef, Palawan.  
April 6, 1909. Length 142 mm.  
 $\underline{\underline{A. II}} - \underline{\underline{I}}, 16.$

caudal base, 40 along below; 4 or 5 above, 12 below; soft vertical fins with basal half finely scaled.

D. IX or X, I, 32 or 33, second spine 2 in head, first ray  $2\frac{2}{5}$ ; A. II, 7 or 8, second spine  $2\frac{3}{5}$ ,  $1\frac{1}{3}$  in postocular, first ray 2 in head; caudal 1, cuneate with median point behind; least depth of caudal peduncle  $3\frac{2}{5}$ ; pectoral  $1\frac{1}{5}$ ; ventral  $1\frac{3}{5}$ .

Above bluish green, below silvery. Iris yellowish, above brownish. Opercle with diffuse purplish spot above. Body and fins dusted with grayish. Fins yellowish. Length 115 mm. (Bleeker.)

Only known from Padang, Benculen, Tien and Trusan in Sumatra.



13950. Paluan Bay, Mindoro.  
December 11, 1908. Length 128 mm.

A. II - I, 16.

22622. Paluan River, Mindoro.  
December 11, 1908. Length 74 mm.

A. II - I, 15.

19734. Panabutan Bay, Mindanao.  
February 5, 1908. Length 82 mm.

A. II - I, 17.

Three examples. Panabutan Bay.  
Length 79 to 95 mm. A. II - I, 16.

22449. Pangasinan River.  
December 16, 1908. Length 78 mm.

19931. Parang, Mindanao.  
May 23, 1908. Length 193 mm. A. II - I, 16.

Twelve examples. Port Juncos,  
Luzon, from 2 miles up river.  
July 13, 1908. Length 42 to 52 mm.

A. II - I, 17 or 18.

13967. Port San Vicente, Palani River.  
November 14, 1908. Length 115 mm.

A. II - I, 17.

179 *Johnius hypostomus* (Bleeker)<sup>1573</sup>  
Corvina hypostoma Bleeker, Natuurk.

Tijdschr. Nederland. Indië, vol. 5, 1853,  
p. 479. Tadane, Sumatra.

Sciæna hypostoma Günther, Cat. Fishes  
Brit. Mus., vol. 2, 1860, p. 293 (copied).

Johnius hypostoma Bleeker, Verhandel.  
Akad. Wetensch. Amsterdam, series 3, vol.  
14, 1874, p. 42 (Sumatra); Atlas Ichth.  
Ind. Néerland., vol. 9, 1877, pl. (1) 384,  
fig. 2.

Depth  $3\frac{1}{5}$  to  $3\frac{1}{2}$ ; head  $3\frac{2}{3}$  to 4. Snout  
 $4\frac{1}{2}$  in head; eye 4 to  $4\frac{1}{2}$ , little larger to  
subequal with snout,  $1\frac{1}{2}$  in interorbital;  
maxillary reaches opposite eye center,  
length 3 in head; teeth villiform, outer  
upper row slightly enlarged, lower teeth  
uniformly low; interorbital low; preopercle  
edge denticulate.

Scales 45 along above lateral line to



7193. Port San Vicente. November 16, 1908. Length 335 mm. <sup>1517</sup>

5412. Ragay River, Ragay Gulf, Luzon. March 10, 1909. Length 178 mm. A. II - I, 16.

22324, 22325. River at Pasacao, Luzon. March 9, 1909. Length 112 to 178 mm. A. II - I, 16 or 17.

8850. San Miguel Bay. June 15, 1909. Length 272 mm.

8780. Santiago River, Pagapas Bay, Luzon. February 20, 1909. Length 93 mm. A. II - I, 16.

22343. Shore above Iloilo River Iloilo. June 2, 1908. Length 63 mm. A. II - I, 16.

21386. Sebaste Island. January 2, 1909. Length 85 mm. A. II - I, 16.

<sup>1510</sup> 12314. Stream at Nagas, Lagonoy Gulf, Luzon. June 17, 1909. Length <sup>170</sup> 120 mm. A. II - I, 17.

21541. Subic Bay. January 7, 1908. Length 124 mm. A. II - I, 17.

1573  
but lower rays of both pale yellowish.  
Iris gray.

India, East Indies, Philippines,  
China. The nominal Corvinus papuensis  
is evidently synonymous, Have seeming  
to distinguish it chiefly by the larger  
scales.

4 examples. A. N. S. P. Orion, Luzon.

Rev. Joseph Clemens. 1923. Length 90 to 148 mm.

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52717 A. N. S. P. Orion, Luzon.

Rev. Joseph Clemens. 1923. Length 108 mm.  
Purchased.



A 536. Tambun Sigumbul.  
September 14, 1909. Length 310 mm.

24127 to 24129. Taron  
Point. D. 5562. Taron Point  
(Jolo), N.  $87^{\circ}$  E., 17.2 miles (lat.  
 $5^{\circ}54'20''$  N., long.  $121^{\circ}13'12''$  E.),  
vicinity of Jolo. September 19,  
1909. Length 50 to 63 mm.

A. II - I, 16 or 17.

Thirteen examples. Tilig, Lubang.  
July 14, 1908. Length 66 to 137 mm.

A. II - I, 17 or 18.

A 537, A 538. Tulayan Island.  
September 15, 1909. Length 295 to 300 mm.

21593, 22115. Yana River, Legaspi.  
June 7, 1909. Length 85 to 103 mm.  
Length 85 to 103 mm. A. II - I, 16.

...ly convex. Girth  
 ...  
 ... 48 or 49 in ...  
 ...; 7 above,  
 ... Scales with 9  
 ... striae; 36 to  
 ... with 7 or 8  
 ... elements; cir  
 ... or XI, 27, I or  
 ... 1/5 in head, first  
 ... second spine 2  
 ... to 2; caudal  
 ... th of caudal p  
 ... 1 1/3 to 1 2/5; ven  
 ... brown above, w  
 ... tral dusky to

all rays  
lateral line  
8 below, 3  
to 11 basals  
38 apical  
transverse  
culi line  
28, I, thin  
st ray  $2\frac{3}{5}$   
 $\frac{1}{2}$  to  $2\frac{3}{4}$ ,  
 $\frac{1}{5}$  to  $1\frac{1}{4}$ , c  
heduncle 3  
tral  $1\frac{1}{2}$  to  
white below  
minally.  
also paired

7 + 4,  
ne to  
o  
al  
al  
row  
id spine  
5 to  $2\frac{4}{5}$ ;  
third  
cuneate;  
 $3\frac{1}{2}$  to  $3\frac{3}{4}$ ;  
 $1\frac{3}{5}$ .  
Spinous  
Soft  
ed fins,



21396. Ambonia Point, Ambonia,  
Dutch East Indies. December 6,  
1909. Length 75 mm. A. II - I, 17.

~~14131~~ 12860, 12861, 14131 to 14133,  
21261, 21262. Tifu Bay, Buru.  
December 10, 1909. Length 88 to  
174 mm. A. II - I, 16 or 17.

A 1188. Gane Road, Gillolo.  
December 1, 1909. Length 325 mm.  
12175. Powati Harbor, Makyan.  
November 28, 1909. Length 173 mm.  
A. II - I, 18.

A 1116. Makyan Island. November  
28, 1909. Length 517 mm.

A 756. Sipadan Island. September  
28, 1909. Length 255 mm.

A 848, A 851. Talisse Island.  
November 9, 1909. Length 235 to 245  
mm.

21216, 22174. Uhai, Buru Island.  
December 9, 1909. Length 83 to 102 mm.  
A. II - I, 17 or 18.

p. 451 (Ceylon).

Johnius axillaris Fowler, Proc. Acad. Nat. Sci. Philadelphia, 1927, p. 285 (Eigen; Orion).

Corvina papuensis Hase, Jena Zeitschr. Nat., vol. 51, 1914, p. 531, figs. 4-6. Tami, Kaiser Wilhelms Land, New Guinea.

Johnius papuensis Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 235 (copied).

Depth  $3\frac{1}{2}$  to 4; head 3 to  $3\frac{1}{3}$ , width  $1\frac{4}{5}$  to  $1\frac{7}{8}$ . Snout  $3\frac{1}{2}$  to  $3\frac{3}{4}$  in head; eye 4 to  $4\frac{2}{3}$ ,  $1\frac{1}{8}$  to  $1\frac{1}{4}$  in snout,  $1\frac{1}{8}$  to  $1\frac{1}{4}$  in interorbital; maxillary reaches  $\frac{2}{5}$  to  $\frac{1}{2}$  in eye, expansion  $1\frac{1}{2}$  to  $1\frac{2}{3}$  in eye, length  $2\frac{1}{4}$  to  $2\frac{2}{5}$  in head; outer upper row and inner lower row of teeth enlarged, latter little shorter; interorbital  $3\frac{1}{2}$  to



598. Gondra Island. September 20,  
1909. Length 920 mm. caudal ends  
broken.

6322, 6324. Kowloon, China.  
September 18, 1908. Length 165 to  
175 mm. A. II - I, 17.

A1003. Locality not given.  
Length 112 mm. A. II - I, 16.

can 129

1584

Johnius axillaris (Cuvier)

Cuvier, axillaris Cuvier, Hist. Nat. Poiss.,  
vol. 5, 1830, p. 113. Malabar.  $\frac{1}{m}$  Valenciennes,

Voy. Indes Orient. Bélanger, Zool., 1834,

p. 356 (Malabar coast).  $\frac{1}{m}$  Günther, Cat.

Fishes Brit. Mus., vol. 2, 1860, p. 302 (no

locality).  $\frac{1}{m}$  Day, Fishes of Malabar, 1865,

p. 53 (copied).  $\frac{1}{m}$  Sauvage, Bull. Soc. Philomath.

Paris, ~~ser. 7~~, vol. 5, 1881, p. 106 (Swatow,

China).  
①

Sciæna axillaris Day, Fishes of India,

p. 2, 1876, p. 188, pl. 43, fig. 6 (Orissa;

Madras); Fauna British India, <sup>Fishes</sup> vol. 2,

1889, p. 116.  $\frac{1}{m}$  Rutter, Proc. Acad. Nat.

Sci. Philadelphia, 1897, p. 76 (compiled).

$\frac{1}{m}$  Pearson, Ceylon Administrat. Rep., 1925, p. F14.

Bola axillaris Jordan and Starbuck, Ann.

Carnegie Mus., vol. 11, nos. 3-4, November 5, 1917,



Four examples. Buena Vista,  
 Guimares Island. January 14, 1909.  
 Length 131 to 155 mm. Breast entirely  
 scaly. Arch of lateral line  $I \frac{2}{3}$  to  $II \frac{3}{5}$   
 in straight section. D. I, VIII, I, 20;  
 A. II - I, 16 or I, 17.

Centropristes salar Richardson, Trans.  
Zool. Soc. London, vol. 3, June 16, 1842,  
p. 78 (Port Arthur, Tasmania); Ichth.  
Voyage Erebus and Terror, pl. 20, figs. 4-6.

Centropristes (Arripis) salar Richardson,  
Ichth. Voyage Erebus and Terror, 1844-48  
(1845), p. 29 (Bay of Islands, New Zealand;  
Port Arthur; Queen Charlotte Sound and  
Norfolk Island).

Arripis salar Günther, Cat. Fishes Brit.  
Mus., vol. 1, 1859, p. 254 (Raoul Island,  
Norfolk Island, Australia, Port  
Arthur). Hector, Colonial Mus. Geol.  
Surv. Departm. (Fishes of New Zealand),  
1872, p. 2; Notes Edible Fish. New  
Zealand, 1872, p. 105, pl. 1, fig. 2. Hector



U. S. N. M., No. 17987. Honolulu.  
 Dr. J. H. Streets. Length 125 mm (both).  
 Two examples. As Carangus chrysos.  
A. II - I, 17 and I, 18.

U. S. N. M., No. 51068. Hawaiian  
 Islands. Bureau of Fisheries (04049).  
 Length 260 mm. As Carangus latus.  
 Scutes 35. A. II - I, 18.

U. S. N. M., No. 52447. Apia, Samoa.  
 Bureau of Fisheries. Length 280 mm.  
 As Caranx marginatus. Scutes 31.  
A. II - I, 18.

U. S. N. M., No. 52725. Hawaiian  
 Islands. Bureau of Fisheries (04044).  
 Length 278 mm. As Carangus marginatus.  
A. II - I, 15.

U. S. N. M., No. 51979. Negro. Dr.  
 Bashford Dean. 1901. Length 148? mm.  
A. II - I, 17. As Caranx ferdau.

U. S. N. M., No. 55217. Hilo.  
 Albatross Collection (1215). Length 79 mm.  
A. II - I, 17. As Carangus rhabdotus.

1711

Günther, Introd. Study of Fishes, 1880,  
p. 395, fig. 165. — Macleay, Proc. Linn.  
Soc. New South Wales, vol. 5, 1881, p. 351  
(east and south coasts of Australia). —  
Woods, Fish. Fisher. New South Wales,  
1883, p. 35, pl. 5. — Sherrin, Handbook  
New Zealand Fish., 1886, p. 50. — Ogilby,  
Edible Fishes New South Wales, 1893, p.  
20, pl. 9. — Waite, Sea Fisher. Rep. Thetis,  
1898, p. 43 (Lord Howe Island).

Aurhipis salar Schmeltz, Cat. Mus. Godeffroy,  
no. 6, 1877, p. 12 (Sydney). (Error.)

Sciaena mulloides rapidissimus (Holander)

Richardson, Trans. Zool. Soc. London,  
vol. 3, January 16, 1842, p. 79 (on drawing



U. S. N. M., No. 56081. Mindanao.  
Bureau of Fisheries (4292). Length  
133 mm.  $A_{\text{I}}^{\text{II}} - \text{I}, 17$ .

U. S. N. M., No. 56290. Cavite. Dr.  
G. A. Lung. Length 59 to 88 mm. Seven  
examples. Breast scaled. As  
Caranx ignobilis.

U. S. N. M., No. 65771. Marshalls.  
Albatross Collection (09037). Length  
88 mm.  $A_{\text{I}}^{\text{II}} - \text{I}, 15$ . As Caranx forsteri.

U. S. N. M., No. 65772. Tari Tari,  
Gilberts. Albatross Collection.  
Length 190 to 240 mm. Two examples.  
 $A_{\text{I}}^{\text{II}} - \text{I}, 17$ . As Caranx forsteri.

U. S. N. M., No. 65777. Bora Bora,  
Society Islands. Albatross Collection  
(05857). Length 64 to 72 mm. Two  
examples.  $A_{\text{I}}^{\text{II}} - \text{I}, 17$ . As Caranx  
melampygus.

U. S. N. M., No. 65781. Funafuti; Ellice  
Islands. Albatross Collection (08842,  
08851). Length 74 to 123 mm. Two examples.  
 $A_{\text{I}}^{\text{II}} - \text{I}, 16$  or  $\text{I}, 17$ . As Caranx forsteri.

vol. 2, no. 1, April 23, 1921, p. 104, fig. 160.

— Fowler, Proc. Acad. Nat. Sci.

Philadelphia, 1923, p. 44 (Melbourne).

— McCulloch, Fishes New South Wales,

ed. 2, 1927, p. 55, pl. 23, fig. 200 b.

Perea marginata Cuvier, Hist. Nat. Poiss;

vol. 2, 1828, p. 53. "Peron avait rapporté

de son voyage" [locality unknown,

probably Tasmania].

Centropristes truttaceus Cuvier, Hist.

Nat. Poiss., vol. 3, 1829, p. 50. Port Western.

Auripis truttaceus Günther, Cat. Fishes

Brit. Mus., vol. 1, 1859, p. 254 (copied).

— Castelnau, Proc. Zool. Acclimatiz. Soc.

Victoria, vol. 1, 1872, p. 52 (Victoria);



U. S. N. M., no. 71837. Kafa, Okinawa.  
Albatross Collection: 1906. Length 70 to  
 110 mm. Three examples. Breast scaled.  
 As Caranx ignobilis.

U. S. N. M., no. 56089. Philippines.  
 Bureau of Fisheries (4165). Length 348?  
 mm. Scutes 30. A. II - I, 16. As  
Caranx cynodon.

U. S. N. M., no. 72095. Kafa, Okinawa.  
Albatross Collection 1906. Length 100 to  
 208 mm. Five examples. As Caranx  
forsteri.

U. S. N. M., no. 72160. Manila market.  
 R. C. Mac Gregor. Length 207 mm.  
 A. II - I, 16 or 17. As Caranx forsteri.

U. S. N. M., no. 72180. Lubang,  
 Philippines. R. C. Mac Gregor. Length  
 108 mm.

U. S. N. M., no. 72271. Iloilo.  
 R. C. Mac Gregor. Length 70 mm.

1159

Arripis trutta (Schneider).

Sciaena trutta <sup>(Forster)</sup> Schneider; Syst. Ichth.

Bloch, 1801, p. 542. Cook Strait and

Queen Charlotte Sound, New Zealand.

Perca trutta Cuvier, Hist. Nat. Poiss.,  
vol. 2, 1828, p. 53 (New Zealand).

Arripis trutta Gill, Mem. Nat. Acad.  
Sci., vol. 6, 1893, p. 116 (reference). u

Stead, Fishes of Australia, 1906, pp.  
113, 116. u Waite, Records Canterbury Mus.,  
vol. 1, no. 1, April 25, 1907, p. 20 (reference);  
vol. 1, no. 3, June 24, 1911, p. 219 (Palmer  
Bay, in 11 to 38 fathoms). u Roughley,  
Fishes of Australia, 1916, p. 116, pl. 37.  
u Waite, Records South Austral. Mus.,



U. S. N. M., no. 72592. Java.  
O. Bryant and W. Palmer. Length 280 mm.  
As Caranx forsteri.

U. S. N. M., no. 75900. Borneo.  
H. C. Raven. Length 225 mm. Lower  
gill rakers 15. A. II - I, 17.

U. S. N. M., no. 89040. Tahiti.  
J. M. Clements. Length 72 to 78 mm.  
Two examples. As Caranx rhabdotus.

U. S. N. M., one example. Papeete,  
Tahiti. Dr. W. H. Jones. Length 85 mm.  
As Caranx melampygus.

U. S. N. M., one example (with 52360).  
Apia, Samoa. Bureau of Fisheries.  
Length 90 mm. A. II - I, 16.

U. S. N. M., two examples (with 55367).  
Hawaiian Islands. Bureau of  
Fisheries. Length 78 mm. A. II - I, 16  
or 17. As Caranx forsteri.

gray interval, from 16 or 17 longitudinal stripes, fainter towards belly. Cheeks pearly, with bronze reflections on opercle, upper hind edge and spot about middle of front edge darker. Throat and maxillary white. Iris bronze, yellowish and green. Fins light gray, speckled with black, dorsal and anal flecked with blackish with imperfect narrow blackish edge to dorsal. Caudal blackish olive, hind margin and tips blackish. Pectoral dark. Ventral nearly colorless. Length 406 mm.

(McCoy.)

New South Wales, Victoria, South  
and Western Australia.



(with 55423).

U. S. N. M., three examples,  
Hilo. Bureau of Fisheries. Length  
60 to 90 mm. A. II - I, 16 or 17.  
As Caranx forsteri.

U. S. N. M., one example (with  
65775). Huahua, Marquesas,  
Albatross Collection. Length 70 mm.  
A. II - I, 17, Scutes 30.

D. IX, 14, fourth spine  $1\frac{7}{8}$  in total head length, first ray  $2\frac{3}{5}$ ; A. III, 10, first ray  $2\frac{2}{3}$ ; caudal  $3\frac{2}{3}$  in combined head and body to caudal base, deeply forked; least depth of caudal peduncle  $2\frac{3}{5}$  in total head; pectoral  $1\frac{4}{5}$ ; ventral  $1\frac{9}{10}$ .

Top of head dark olive to level of eye, with paler extension around eye. Top of snout of both jaws, blackish. Back dark olive gray with bronze and steel blue reflections. Sides gradually lighter to ventral edge. Rather more than  $\frac{1}{3}$  of each scale in longitudinal rows darker and more olive than lighter



A. n. S. P., one example. Delagoa Bay, Portuguese East Africa. 1922. H. J. W. Bell Marley. Length 182 mm.

A. n. S. P., two examples. Bombay. 1925. Prof. F. Hallberg. Purchased. Length 127 to 132 mm.

A. n. S. P., one example. Ceylon. 1925. Prof. F. Hallberg. Purchased. Length ~~127~~ to ~~132~~ mm. <sub>105</sub>

~~A. n. S. P.~~

London Internat. Exhib. Cat. Victoria,  
1872, pp. 132, 133 (Victoria); Proc.  
Zool. Acclimatiz. Soc. Victoria, vol. 2,  
1873, p. 127 (Freemantle); Proc. Linn.  
Soc. New South Wales, vol. 3, 1878, p. 350  
(Port Jackson). — Klunzinger, Sitz. Ber.  
Akad. Wiss. Wien, math.-naturw. Classe,  
vol. 80, pt. 1, 1879, p. 347 (Wellington,  
King George's Sound, Hobson's Bay). —  
Johnston, Proc. Royal Soc. Tasmania,  
1882 (1883), p. 110 (Tasmania). — McCoy,  
vol. 1,  
Prodromus Zool. Victoria, dec. 2, 1885,  
pls. 16-17.

Centropristis salar Richardson, Proc. Zool.  
Soc. London, vol. 7, 1839, p. 95. Port Arthur,  
Van diemen's Land.



Caranx melampygus Cuvier

Caranx melampygus Cuvier, Hist.  
nat. Poiss., vol. 9, p. 116, 1833 (type  
locality, Waigiu; Rawak, Buru;  
Vanicolo; <sup>Jerdon, Madras Journ. Lit. Sci., p. 137, 1851,</sup> Mauritius). — Bleeker,  
Verh. Batavia. Genoot. (Ned. Ichth.  
Bengal), vol. 25, p. 44, 1853 (reference);  
Ned. Tijds. Ned. Indie, vol. 6, p.  
51, 58, 1854 (Sindangole,  
Halmaheira); vol. 12, p. 215, 1856  
(Sias), p. 243 (Boteling, Bali);  
Act. Soc. Sci. Ind. Nederl., vol. 1,  
no. 5, p. 6, 1856 (Amboina); vol. 3,  
no. 4, p. 3, 1857-58 (Manado,  
Tarawanko). — Günther, Cat.  
Fish. Brit. Mus., vol. 2, p. 446,  
1860 (Guadalcanal; Tanga; Wanderer Bay).  
— Bleeker, Ned. Tijds. Dierk., vol.  
1, p. 152, 1863 (Butjan). — Playfair,  
Fishes of Zanzibar, p. 61, 1866 (Zanzibar).

~~1094~~

22099. Abuyog, Leyte. July 26, 1909.  
Length 116 mm.

22714. Balayan Bay, Luzon. January 19,  
1908. Length 118 mm.

9 examples. Beach near anchorage off  
Laet, Luzon. June 15, 1909. Length 61 to 110 mm.

20287. Below mouth Mindanao River,  
Cotabato, Mindanao. May 20, 1908. Length 75 mm.

21242. Below mouth Mindanao River,  
Cotabato. May 22, 1908. May 22, 1908. Length 88 mm.

4 examples. Buena Vista, Guimaras Island.  
January 14, 1909. Length 58 to 138 mm. Seine in  
mouth of river.

22138 (D. 5461). Caringo Island (W.), h.  
12° W., 4.9 miles (13° 57' 42" N., 123° 06'  
42" E.). June 14, 1909. Length 199 mm.

8847, 9110, 9111, ~~9118 to 9120~~, ~~21158~~, Catbalogan,  
Samar. April 15, 1908. Length <sup>117</sup>75 to <sup>165</sup>185 mm.

~~22446. Cavite market. June 26, 1908.~~  
~~Length 84 mm.~~



- Günther, Journ. Mus. Godeffroy, vol. 5, pt. 11, p. 133, pl. 86, 1876 (Raiatea). — Peters, Monatsber. Akad. Wiss. Berlin, 1876, p. 440 (Mauritius; Seychelles). — Day, Fishes of India, pt. 2, p. 214, pl. 50, fig. 3, 1876 (Andaman); ~~Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 335, 1882~~ ~~Suppl. p. 789, 1888; Fauna British India, Fishes, vol. 2, p. 152, 1889.~~
- ~~New Guinea~~. — Bryan and Herre, Occas. Pap. Bishop Mus., vol. 2, no. 1, p. 128, 1902 (1903) (Marcus Island). — Seale, Occas. Pap. Bishop Mus., vol. 4, no. 1, p. 32, 1906 (Tubuai; Nukuhiva; Faté). — Steindachner, Sitzs. Akad. Wiss. Wien, math.-naturw. Kl., vol. 115, pt. 1, p. 1403, 1906 (Upolu). — Jordan and Seale, Bull. Bur. Fisher., vol. 25, p. 230, 1905 (1906) (Pago Pago). — Weber, Nova Guinea, vol. 5, pt. 2, p. 249, 1908 (Klipang River, north New Guinea).

Ost Asien, 1876, p. 390 (Yeddo; Yokohama;  
Manila).  $\frac{1}{m}$  Günther, Rep. Voyage  
Challenger, vol. 1, 1880, p. 66 (Inland Sea  
of Japan).  $\frac{1}{m}$  Karoli, Termesz. Füzetek,  
Budapest, vol. 5, 1881, p. 159 (Canton).  $\frac{1}{m}$   
Day, Fauna British India, vol. 2, 1889, p. 114.  
 $\frac{1}{m}$  Boulenger, Proc. Zool. Soc. London, 1892, p.  
135 (Muscat).  $\frac{1}{m}$  Elera, Cat. Fauna Filipinas,  
vol. 1, 1895, p. 501 (Manila; Luzon).  $\frac{1}{m}$   
Ishikawa and Matsuura, Prelimin. Cat.  
Fishes Mus. Tokyo, 1897, p. 45.  $\frac{1}{2}$  Zugmayer,  
Abhandl. Kon. Bayer. Akad. Wiss., math.-  
physik. Klasse, vol. 26, band 6, 1913, p.  
12 (Mekran; Oman).  
Johnius sinu Blyth, Journ. Asiatic Soc.  
Bengal, vol. , 1860, p. 141 (Sitang River).  $\frac{1}{m}$   
Becker, Verhandl. Kon. Akad. Wetensch.  
Amsterdam, vol. 14, 1874, p. 54 (copied).  $\frac{1}{m}$   
Fowler, Proc. Acad. Nat. Sci. Philadelphia,  
1925, p. 247 (Delagoa Bay); Journ. Bombay



— Regan, Ann. Natal Museum, vol. 1,  
pt. 3, p. 246, May 15, 1908 (Kosi Bay,  
Natal).

— Weber, Siboga Exped., vol. 57, p.  
Fische, p. 397, 1913 (Celebes;  
Karakelang; Salibabu).

— Gilchrist and Thompson, Ann. Durban  
Mus., vol. 1, pt. 4, p. 386, May 21, 1917  
(reference).

— Wakaya, Ann. Carnegie Mus., vol.  
15, p. 192, 1924 (Ryukyu).

Meyer, Ann. Soc. Españ. Hist. Nat. Madrid,  
vol. 14, 1885, p. 12 (north Celebes; Cebu).  
— Gorgoza, Ann. Soc. Españ. Hist. Nat.  
Madrid, vol. 17, 1888, p. 283 (Cebu). —  
Day, Fauna Brit. India, vol. 1, 1889, p. 494.  
— Gatzow and Lenz, Abhandl. Senckenberg.  
Gesell., vol. 21, 1899, p. 500 (Zanzibar). —  
Weber, Zool. Forschungsr. Austral. Senon,  
vol. 5, 1895, p. 263 (Ambrina). — Elera, Cat.  
Fauna Filip., 1895, p. 470 (Cebu). — Stein-  
dachner, Abhandl. Senckenberg. Naturf.  
Gesell., vol. 25, 1900, p. 416 (Ternate; Batjan;  
Patani River, Halmahera).

Amia fasciata Bleeker, Atlas Ichth.  
Ind. Néerl., vol. 7, 1873-76, p. 87 (Sumatra,  
Batu, Lepar, Java, Cocos, Bawean, Bali,  
Celebes, Sangir, Solor, Timor, Ternate,  
Buru, Ceram, Ambrina, Goram, Banda,  
Diru, Luzon, Samar); op. cit., vol. 8,  
1876-77, pl. (48) 326, fig. 4. — Evermann



— Barnard, Ann. South African  
Mus., vol. 21, pt. 2, p. 544, Oct. 1927  
(Zululand).

Apogon fasciatus (non Shaw) Ducy and  
Gaimard, Voy. Etienne, Zool., 1825, p. 344  
(Guam). — ~~Peters, Arch. Naturgesch., 1855, p. 204 (Mozambique)~~ — Günther, Cat.  
Fishes Brit. Mus., vol. 1, 1859, p. 241 (part).  
— Kner, Reise Novara, Zool., vol. 1, pt. 5,  
1865, p. 43 (Punipet, Tahiti, Hong Kong, Java).  
— Playfair, Fishes of Zanzibar, 1866, p. 20  
(Zanzibar and Joanna). — Peters, Monatsb.  
Akad. Wiss. Berlin, 1868, p. 256 (Paracali,  
Luzon; east of Lauang, Samar). —  
Klunzinger, Verh. zool. bot. Gesell. Wien, vol.  
20, 1870, p. 712 (Koseir, Red Sea). — Günther,  
Journ. Mus. Godeffroy, vol. 1, pt. 1, 1873,  
p. 19, pl. 20, fig. B (Society Islands; Kingmill  
Islands; Apia). — Day, Fishes of India,  
pt. 1, 1875, p. 60. — Martens, Preuss. Exped.  
Ost-Asien, 1876, p. 386 (Amboina). —  
Károli, Termesz. Füzetek, Budapest,  
vol. 5, 1882, p. 152 (Nagasaki, Japan). —



— Kendall and Goldsborough,  
 Mem. Mus. Comp. Zool., vol. 26, p.  
~~267~~ 268, 1911 (Vavau, Tonga;  
 Funafuti, Ellice Islands; Fakarava  
 and Makemo, Paumotu; Borabora,  
 Society Islands; Suva, Fiji  
 Islands; Marshalls; Nukuhiva,  
 Marquesas). — McCulloch, Mem.  
 Queensland Mus., vol. 8, pt. 1, p. 70,  
 pl. 11, fig. 2, January 30, 1924  
 (type of Caranx moresbyensis). —  
E. K. Jordan, Proc. U. S. Nat. Mus.,  
 vol. 66, p. 15, 1925 (Honolulu). —  
Whitley, Journ. Pan Pac. Res. Inst.,  
 vol. 3, no. 1, p. 12, January-March  
 1928 (Santa Cruz Islands). —  
Herre, Journ. Pan Pac. Res. Inst.,  
 vol. 6, no. 4, p. 10, October-December  
 1931 (Moorea, Society Islands).

Cuv 29

Johnius sina (Cuvier)

Corvina sina Cuvier, Hist. Nat. Poiss.; vol. 5,  
1830, p. 127, Pondichery, Malabar, Japan.  $\frac{1}{m}$   
Valenciennes, Voyage Ind. Orient. Bélanger,  
Zool., 1834, p. 35 (Malabar; Pondichery).  
 $\frac{1}{m}$  Richardson, Ichth. China Japan, 1846, p.  
225 (China).  $\frac{1}{m}$  Bleeker, Verhandel. Batavia.  
Genootsch. (Nederl. Ichth. Japan.), vol. 25,  
1853, p. 12; (Nederl. Ichth. Bengal), vol. 25,  
1853, p. 36; (Nederl. Ichth. Japan.), vol. 26,  
1857, p. 82 (Nagasaki); Act. Soc. Sci. Ind.  
Néerland., no. 3, vol. 3, 1857-58, p. 5 (Japan);  
Verslagen Meded. Akad. Wetensch.  
Amsterdam, series 2, vol. 3, 1869, p. 238  
(Jedo). <sup>①</sup>

Sciaena sina Günther, Cat. Fishes Brit.  
Mus., vol. 2, 1860, p. 292 (compiled).  $\frac{1}{m}$  Day,  
Fishes of Malabar, 1865, p. 52;  $\frac{1}{m}$  Fishes of  
India, pt. 2, 1876, p. 186, pl. 4, fig. 2  
(Bombay; Sind).  $\frac{1}{m}$  Wartens, Preuss. Exped.



— Fowler, Mem. Bishop Mus., vol. 11, no. 6, p. 404, 1934 (Santa Cruz Island and Vaitupu, Ellice Islands).

Martens, Preuss. Exped. Ost Asien, vol. 1, p. 391, 1876 (Amboina). —

Caranx melampygus Schmeltz, Cat. Mus. Godeffroy, no. 7, p. 45, 1879 (Upolu; Tahiti). — Töhl, Cat. Mus. Godeffroy, no. 10, p. 31, 1884 (Upolu).

Caranx melampigus Elera, Cat. Fauna Filipinas, vol. 1, p. 510, 1895 (Luzon; Manila; Masugba; Butangas).

Caranx (Caranx melampygus Weber and Beaufort, Fishes Indo-Austral. Archip., vol. 6, p. 248, 1931 (North New Guinea).

Bleeker, Res. Faune Madagascar, pt. 4, p. 99, 1874 (reference). —

Carangus melampygus Streets, Bull. U. S. Nat. Mus., no. 7, p. 69, 1877 (Honolulu). — Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 192, 1903 (1905) (Honolulu; Samoa).

~~1527~~

least depth of caudal peduncle  $4\frac{1}{3}$ ;  
pectoral  $1\frac{2}{5}$ ; ventral  $1\frac{1}{2}$ .

Brown, paler to whitish below.  
Membranes of dorsals deeper brownish  
terminally. Iris whitish.

Borneo. Greatly like johnius soldado  
but differing in the larger and more  
slender caudal peduncle and greatly  
smaller eye.

35720 U. S. N. M. Handong River, North  
Borneo. W. J. Hornaday. Length 505 mm.  
This example skinned out.



Caranx (Caranx) melampygus

Klunzinger, Fische Roth. Meer.,

vol. 1, p. 99, 1884.

257

Amia novemfasciata Jordan and Seale,  
Proc. U. S. Nat. Mus., vol. 28, 1906, p. 777  
(Negros); Bull. Bur. Fisher., vol. 25, 1905  
(1906), p. 242, figs. 36-37 (Pago Pago and  
Apia). — Jordan and Richardson, Bull.  
Bur. Fisher., vol. 27, 1907 (1908), p. 254  
(Calayan, Cuyo, Ticao). — Radcliffe, Proc.  
U. S. Nat. Mus., vol. 41, 1911, p. 251, pl. 23,  
(Luzon, Celebes, Apia, Fiji). — Snyder,  
Proc. U. S. Nat. Mus., vol. 42, 1912, p. 497  
(Okinawa). — Fowler, Bishop Mus. Bull.,  
no. 22, 1925, p. 8 (Guam).

Amia fasciata novemfasciata McCulloch,  
Biol. Res. Endeavour, vol. 3, no. 3, 1915, p. 117  
(Murray Island; Samoa; New Hebrides;  
Tongatabu, Friendly Islands; Bougainville  
Island, Solomons).



Caranx bixanthopterus Rüppell,  
Neue Wirbelth. Fische, p. 49, 1835  
(type locality, Djedda, Red Sea). —  
Klunzinger, Verh. zool. bot. Gesell.  
Wien, vol. 21, p. 464, 1871 (Red Sea).  
— Wakiya, Ann. Carnegie Mus.,  
vol. 15, p. 190, pl. 27, fig. 2, 1924  
(Kii; Uwajima; Nagasaki; Bonin  
Islands; Ryukyu).

1549  
Cuv. 79

Johnius polycladiscus (Bleeker)  
Corvina polycladiscus Bleeker, Natuurk.  
Tijdschr. Nederland. Indië, vol. 3, 1852,  
p. 420. Banjermasin, Borneo.

Corvina polycladiscus Günther, Cat. Fishes  
Brit. Mus., vol. 2, 1860, p. 301 (compiled).

Pseudosciaena polycladiscus Bleeker,  
Verhandel. Kon. Akad. Wetensch. Amsterdam,  
series 3, vol. 14, 1874, p. 29 (Borneo); Atlas  
Ichth. Ind. Néerland., vol. 9, 1877, pl. (1)  
384, fig. 1.

Depth 3; head  $3\frac{1}{5}$ , width  $2\frac{1}{6}$ . Snout  $3\frac{2}{3}$   
in head; eye 9,  $2\frac{1}{5}$  in snout,  $2\frac{1}{8}$  in  
interorbital; maxillary reaches  $\frac{1}{2}$  in eye,  
expansion slightly greater than eye,  
length  $2\frac{7}{8}$  in head; jaws even in front,  
chin with 4 slit like pores; teeth in  
villiform bands in jaws, upper outer row  
slightly enlarged, likewise inner lower  
row, though less so; interorbital 4, broadly



Caranx forsteri (not Cuvier) Jordan  
and Evermann, Bull. U. S. Fish  
Comm., vol. 23, pt. 1, p. 191, 1903 (1905)  
(part).

Caranx forsteri Jordan and Seale,  
Bull. Bur. Fisher., vol. 25, p. 230,  
1905 (1906) (part).

Amia novemfasciata (Cuvier)

Apogon novemfasciatus Cuvier, Hist. Nat. Poiss., vol. 2, 1828, p. 154. Timor and Guam.  
— Richardson, Ichth. China Jap., 1846, p. 221 (China). — Peters, Arch. Naturgesch., 1855, p. 234 (Mozambique). — Fowler, Journ. Acad. Nat. Sci. Phila., ser. 2, vol. 12, 1904, p. 519 (Padang, Sumatra); Proc. Acad. Nat. Sci. Phila., 1906, p. 527 (Padang material). — Beaufort, Bijdr. Dierk., Amsterdam, 1913, p. 114 (Saonek, Waigiu). — Weber, Siboga Exped., vol. <sup>59, Fish</sup> 65, 1913, p. 224 (Savu; Sanghisiapo, Sulu Archipelago; Menado; Biaru; Karakelang; Sabibabu; north Ceram; Salayer; Nusa Laut; Tuir; High Key; Roma; Timor, Rotti).



Caranx moresbyensis Macleay, Proc. Linn. Soc. New South Wales, vol. 7, p. 358, 1882 (type locality, New Guinea).

Carangus latus (not Agassiz) Jenkins, Bull. U. S. Fish Comm., vol. 22, p. 444, 1902 (1903) (part).

Carangus lugubris (not Pey Seale, Occas. Pap. Bishop Mus., vol. 4, no. 1, p. 321, 1906 (Rarotonga; Shortland; Tahiti; Mukuhiwa).

Caranx ascensionis (not Osbeck) Fowler, Mem. Bishop Mus., vol. 10, p. 145 (not figure), 1928 (Oceania materials); vol. 11, no. 5, p. 326, 1931 (part).

? Caranx ishikawai Waksja, Ann. Carnegie Mus., vol. 15, p. 193, pl. 26, 1924 (type locality, Bonin Islands; Formosa).

Depth  $3\frac{1}{5}$  to  $3\frac{1}{4}$ ; head  $2\frac{1}{5}$  to 3, width 2. Snout  $3\frac{1}{5}$  to  $3\frac{3}{5}$  in head; eye  $4\frac{7}{8}$  to  $5\frac{1}{4}$ ,  $1\frac{1}{5}$  in snout,  $1\frac{2}{5}$  in interorbital; maxillary reaches opposite hind pupil edge, length  $2\frac{1}{5}$  to  $2\frac{1}{4}$  in head; narrow band of fine jaw-teeth, outer upper row enlarged and lower inner row slightly enlarged and close set; interorbital  $3\frac{2}{3}$  to  $3\frac{4}{5}$ , broadly convex. Gill rakers  $8+12$ , lanceolate.

Scales 47 or 48 in lateral line to caudal base; 7 above, 7 or 8 below, 32 predorsal. Scales with 9 to 11 basal radiating striae; 56 to 63 apical denticles, with 10 to 12 transverse rows of basal elements; circuli very fine.

D. VI, 27, I, third spine  $1\frac{7}{8}$  to 2 in head, first ray 3 to  $3\frac{1}{8}$ ; A. II, 8, I, second spine 3 to  $3\frac{3}{4}$ , third ray  $2\frac{1}{10}$  to  $2\frac{1}{3}$ ; caudal  $1\frac{1}{3}$  to  $1\frac{1}{2}$ , obtuse behind;



Depth  $2\frac{1}{2}$  to  $2\frac{2}{3}$ ; head 3 to  $3\frac{1}{5}$ , width  $2\frac{2}{5}$  to  $2\frac{3}{5}$ . Snout  $2\frac{3}{4}$  to  $3\frac{1}{8}$  in head from snout tip; eye  $3\frac{3}{4}$  to  $4\frac{4}{5}$ ,  $1\frac{1}{8}$  to  $1\frac{3}{4}$  in snout,  $1\frac{1}{8}$  to  $1\frac{1}{2}$  in interorbital; maxillary reaches  $\frac{1}{8}$  to  $\frac{1}{5}$  in eye, expansion  $1\frac{1}{5}$  to  $1\frac{4}{5}$  in eye, length  $2\frac{2}{5}$  to  $2\frac{1}{2}$  in head from snout tip; interorbital  $3\frac{1}{5}$  to  $3\frac{2}{5}$ , convexly elevated with median keel. Gill rakers 8 + 17, lanceolate, equals gill filaments or  $1\frac{1}{4}$  in eye.

Scales 37 or 38 + 35 to 37 in lateral line, arch  $1\frac{1}{3}$  to  $1\frac{3}{4}$  in straight section; 17 or 18 above arch to soft dorsal origin, 22 or 23 below. Breast and chest completely scaled.

D. I, VIII - I, 23, I or I, 24, I.

third spine 2 to  $2\frac{1}{6}$  in total head length, first branched ray  $1\frac{2}{5}$  to 2; A. II - I, 18, I, to I, 20, I, first branched ray  $1\frac{3}{4}$  to  $2\frac{1}{3}$ ; caudal  $1\frac{1}{5}$  to  $1\frac{1}{6}$ , deeply forked; least depth of caudal peduncle 7 to  $8\frac{1}{4}$ ; ventral  $2\frac{1}{5}$  to  $2\frac{4}{5}$ , rays I, 5; pectoral II, 18, fin 3 in fish without caudal,  $1\frac{1}{5}$  in head in young.

Back brown, sides and below silvery white. Iris gray white. Vertical fins brownish, lobes of soft dorsal and anal dusky to blackish brown terminally. Paired fins pale to whitish, pectorals bright yellow in life.



Caranx ishikawai Wakuija agrees in many ways with the present species, though differs in the larger and fewer scutes but 30, also its long dorsal and anal lobes subequal with the head.

Red Sea, Zanzibar, Zululand, Natal, Mauritius, Seychelles, Andamans, East Indies, Formosa, Riu Kiu, Philippines, Japan, Melanesia, Micronesia, Polynesia, Hawaii.

1536

22088, 22090. Abuyog, Leyte.  
July 26, 1909. Length 85 to 125 mm.  
A. II - I, 19.

20405. Butungas market.  
June 7, 1908. Length 102 mm.  
A. II - I, 19.

5746, 14072 to 14075. Capunpuyan,  
Mindanao. May 9-10, 1908. Length  
79 to 698 mm.

7517, 7518. Chase Head, Endeavour  
Strait, Palawan. December 22, 1908.  
Length 258 to 288 mm.

7564, 7569, 7688, 7689. Endeavour  
Strait, Palawan. December 23, 1908.  
Length 250 to 313 mm.

6035. Hinunangan Beach,  
Leyte. July 30, 1909. Length 95 mm.  
A. II - I, 19.

A. 1342. Labuan Blanda Island.  
December 14, 1909. Length 326 mm.



Bombay and Gwadar; Fauna British India, <sup>Fishes</sup> vol. 2, 1889, p. 112.  $\frac{1}{n}$  Lloyd, Records Indian Museum, vol. 1, 1907, p.

226 (Chayab).  $\frac{1}{n}$  Pearson, Ceylon Administr. Rep., 1914, p. E7; 1915-18, p. F13.

Sciaena (Pseudosciaena) bleekeri Steindachner

and Döderlein, Denkschr. Akad. Wiss.

Wien, math.-naturw. Klasse, vol. 48, pt. 1, 1884, p. 33 (Japan).

Pseudosciaena schlegelii Bleeker, Verhand.

Kon. Akad. Wetensch. Amsterdam, vol. 18, 1879, p. 9. Nagasaki.

Sciaena (Pseudosciaena) schlegelii Steindachner

and Döderlein, Denkschr. Akad. Wiss.

Wien, math.-naturw. Klasse, vol. 48, pt. 1,

1884, p. 33 (Tokyo).  $\frac{1}{n}$  Jordan and Thompson,

Proc. U.S. Nat. Mus., vol. 39, 1911, p. 254 (Tokyo,

Onomichi, Suruga, Kaiten, Hiroshima,

1537

12328. Luzon shore San Vicente Harbor. November 13, 1908. Length 174 mm.  $\overline{\text{A. II}} - \overline{\text{I}}, 19$ .

8512. Makese Island, Palawan. April 5, 1909. Length 295 mm.

21173. Malcochin Harbor, Linaoapan Island, December 1908. Length 105 mm.  $\overline{\text{A. II}} - \overline{\text{I}}, 19$ .

20855. Manatay, Mindoro. June 4, 1908. Length 73 to 95 mm. Five examples.  $\overline{\text{A. II}} - \overline{\text{I}}, 18 \text{ or } 19$ .

8483, 8681. Mantaguin Bay, Palawan. April 2, 1909. Length 248 to 450 mm. Soft dorsal of larger with filament reaching  $\frac{3}{4}$  of fin and  $\overline{\text{A. II}} - \overline{\text{I}}, 18$ .

Four examples. Mati, Puyada Bay, Mindanao. May 15, 1908. Length 74 to 109 mm.

9353. Murcielagos Bay, Mindanao. April 21, 1909. Length 375 mm.



Sciaena japonica Schlegel, Fauna  
japonica, Poiss., pts. 2-4, 1843, p.  
58, pl. 24, fig. 1. South west coast of  
Japan.  $\frac{1}{2}$  Jordan and Thompson, Proc.  
U. S. Nat. Mus., vol. 39, 1911, p. 260 (copied).  
 $\frac{1}{2}$  Jordan and Metz, Mem. Carnegie  
Mus., vol. 6, no. 1, June 1913, p. 35, pl. 7,  
fig. 1 (Chinnampo, Fusan, Seoul).

Pseudosciaena japonica Jordan and Snyder,  
Annotat. Zool. Japon., vol. 3, 1901, p. 81  
(Yokohama; Nagasaki).

Sciaena mi-iuy Basilevsky, Nov.  
Mem. Soc. Nat. Moscou, vol. 10, 1855, p.  
22. Mari meridiano; Peking.

Sciaena bleekeri (not Pseudolithus  
bleekeri Steindachner 1866) Day, Fishes of  
India, pt. 2, 1876, p. 185, pl. 45, fig. 4.

13952. Palawan Bay, Mindoro.<sup>1538</sup>  
December 11, 1908. Length 105 mm.  
A. II - I, 19.

13951, 13953, 13954, 13819, 13822,  
19566. Palawan Bay, Mindoro.  
December 11, 1908. Length 84 to 151  
mm.

19474. Pangasinan River, Port  
Calton. December 16, 1908. Length  
182 mm. A. II - I, 19.

One example. Philippines. Length  
66 mm. A. II - I, 19.

7756, 7757. Port Ciego, Balabac.  
January 3, 1909. Length 262 to 264 mm.

21648. Port Jamelo, Luzon.  
July 13, 1908. Length 62 to 104 mm.  
A. II - I, 18 or 19.

8536. Port Langcan, Sumaran  
Island. April 8, 1909. Length 255 mm.  
Five examples. Port San Pio  
Lunto, Camaguin Island. March 11,  
1908. Length 71 to 90 mm.



pnul<sup>129</sup>

4577

Johnius argentatus (Houttuyn)

Sparus argentatus Houttuyn, Verhand.  
Holland. Maatsch. Haarlem, vol. 20, 1782,

p. 319. Japan. [not Sciaena argentata

Gmelin 1789 which a Lutjanus.]

Corvina argentata Valenciennes, Hist. nat.

Poiss., vol. 5, 1830, p. 115 (on Houttuyn).

Corvula argentata Jordan and Evermann,

Proc. U. S. Nat. Mus., vol. 25, 1903, p. 351

(<sup>no</sup> Formosa).  $\frac{1}{2}$  Smith and Pope, Proc. U.

S. Nat. Mus., vol. 31, 1906, p. 478 (Kochi).

Sciaena argentata Jordan and Thompson,

Proc. U. S. Nat. Mus., vol. 39, 1911, p. 252

(copied)  $\frac{1}{2}$  Yanaka, <sup>22</sup> Fishes of Japan, vol.

44, December 13, 1928, p. 870, pl. 180, fig. 491

(Tokyo).

7039, 13481. Port San Pio <sup>1539</sup>duinto.  
November 10, 1909. Length 163 to  
195 mm. A. II - I, 19.

6580, 6581, 6585 to 6590. Port San  
Vicente. November 18, 1908. Length  
<sup>58</sup>~~78~~ to 112 mm. A. II - I, 18 or 19.

18747. Pratas Reef. October  
25, 1908. Length 158 mm. ~~Length~~  
A. II - I, 19.

8978. Raper Raper Island.  
June 22, 1909. Length 275 mm.

7068. San Roque, Leyte. July  
29, 1909. Length 130 mm. A. II - I, 19.

20893. Santiago River, Pagapas  
Bay, Luzon. February 20, 1909. Length  
77 mm. A. II - I, 19.

7120. San Vicente Harbor.  
November 13, 1908. Length 444 mm.

9310. Silino Island, northern  
Mindanao. August 10, 1909. Length  
410 mm.



78

spines burnished with silvery white.

Mozambique, Madagascar, India, Ceylon, Pinang, East Indies, Philippines, Indo China, China, Greenland. Barnard says "It is doubtful whether Fowler's description applies to the true soldado. He gives the number of gill rakers as 15, and there are several other points of difference between his description and those of Day and Ogilby". This is somewhat misleading as in the gill rakers the rudiments are included in the count, my materials surely agree in their specific characters and are within the range of variation for the species.

20749. Sbatie Island, Borneo. October 1, 1909. Length 211 mm.

18304 to 18307. River at Macassar, Celebes.

December 26, 1909. Length 208 to 224 mm.

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52985 A.N.S.F. off Bombay. Prof. F.

Hallberg. 1923. Length ~~nearly~~ 93 mm.

A 555. Sulade Island, vicinity <sup>1540</sup> of Jolo. September 17, 1909. Length 580 mm.

A 539, A 540. Tulayan Island, vicinity Jolo. September 15, 1909. Length 415 to 615 mm.

A 471. Tuhahutan Island, east of Zamboanga. September 9, 1909. Length 368 mm.

A 966. Binang Buang Island, Celebes. November 17, 1909. Length 374 mm.

A 1451, A 1452. Kait Point, Libani Bay, Celebes. December 29, 1909. Length <sup>418</sup> ~~374~~ to 495 mm.

A 893, A 895, A 896, <sup>12790.4</sup> Limbe Strait, Celebes. November 10, 1909. Length <sup>178</sup> ~~220~~ to 345 mm.

A 913. Limbe Strait. November 11, 1909. Length 280 mm.



77

caudal largely covered with fine scales. Scales with 9 to 12 basal radiating striae; 45 to 47 apical denticles, with 12 or 13 transverse series of basal elements; circuli fine.

D. X, I, 29, I or 30, I, third spine  $1\frac{3}{5}$  to  $1\frac{7}{8}$  in head, first ray  $2\frac{2}{3}$  to  $2\frac{4}{5}$ ; A. II, 7, I, second spine  $1\frac{4}{5}$  to  $2\frac{1}{8}$ , first ray  $1\frac{3}{4}$  to  $1\frac{4}{5}$ ; caudal  $1\frac{1}{4}$  to  $1\frac{2}{5}$ , cuneate; least depth of caudal peduncle  $3\frac{1}{5}$  to  $3\frac{1}{4}$ ; pectoral  $1\frac{1}{2}$  to  $1\frac{3}{5}$ ; ventral  $1\frac{1}{2}$  to  $1\frac{3}{5}$ .

Drab or lavender brown above, below whitish, most everywhere with silvery white reflections. Iris whitish. Dorsals and caudal pale brownish, membranes of former dusky though each with dark basal spot to spine or ray and subbasally on soft dorsal pale broad area whole length of fin.

<sup>no</sup> Front anal rays little darker than rest of fin. Otherwise fins whitish, most all

22821. Gane Road, Gillolo. 1541  
December 1, 1909. Length 202 mm.  
[2097.] A. II - I, 18.

A 729, A 730, A 720. Danawan Island,  
Borneo. September 27, 1909. Length  
320 to 360 mm.

A 850. Taleise Island. November  
9, 1909. Length 220 mm.

A 1409. Tampotana Island.  
December 21, 1909. Length 252 mm.

5282. Sandakan Bay, Borneo.  
March 21, 1908. Length 83 mm.  
A. II - I, 19.

A 691. Si Amil Island, Borneo.  
September 26, 1909. Length 342  
mm.

(M) 3754. Data not found.  
Length 518 mm.



Depth 3 to  $3\frac{1}{8}$ ; head  $3\frac{1}{4}$  to  $3\frac{1}{3}$ , width  $2\frac{1}{8}$  to  $2\frac{1}{4}$ . Snout  $3\frac{2}{3}$  to  $3\frac{3}{4}$  in head; eye  $4\frac{7}{8}$  to  $5\frac{1}{2}$ ,  $1\frac{1}{4}$  to  $1\frac{1}{3}$  in snout, 1 to  $1\frac{1}{4}$  in interorbital; maxillary reaches  $\frac{4}{5}$  in eye, expansion  $1\frac{2}{5}$  in eye, length  $2\frac{1}{3}$  in head; jaws even or lower trifle shorter; narrow bands of villiform teeth in jaws, outer upper and inner lower little enlarged; interorbital  $4\frac{3}{4}$  to  $4\frac{7}{8}$ , broadly convex; preopercle edge denticulate. Gill rakers 7+13, lanceolate, equal gill filaments or  $1\frac{2}{5}$  in eye; 3 or 4 above and below rudimentary.

Scales 50 in lateral line to caudal base and 25 more out over caudal fin; 9 above, 10 below; 24 predorsal scales to occiput and 23 more forward to snout tip; 16 rows across cheek; soft dorsal and anal with fine scales in basal sheaths and few others on membranes basally;

1542

U. S. N. M., No. 6265. Bonin Islands.  
William Stimpson. Length 144 mm.  
A. I, 19.

U. S. N. M., No. 19237. Fanning Islands.  
Dr. J. H. Streets. Length 408 mm.

U. S. N. M., No. 17980. Honolulu.  
Dr. J. H. Streets. Length 115 to 205 mm.  
A. I, 19.

U. S. N. M., No. 30546. New Guinea.  
Australian Museum. Length 205 mm.  
A. I, 19.

U. S. N. M., No. 38248. Apia, Samoa.  
Dr. Wm. H. Jones. Length 68 to 118 mm.  
Five examples. A. I, 18 or 19.

U. S. N. M., No. 38281. Papeete, Tahiti.  
Dr. Wm. H. Jones. Length 87 to 100 mm.  
Three examples. A. I, 19.

U. S. N. M., No. 45088. Samoa.  
Lord Lilford. Length 104 to 110 mm.  
Two examples. A. I, 19.



1774  
side of chest; third band from  
longest dorsal spine close behind  
ventral base; fourth band from  
front of soft dorsal to front of soft  
anal; fifth across caudal peduncle;  
in pale areas narrower dark transverse  
bands alternating, with age further  
dark streak or line may also eventuate  
in narrower pale areas. Caudal with  
upper and lower edges, together with  
base, dark brown. Ventrals blackish  
brown. Fins, except as otherwise noted,  
very pale or light brown.

Queensland, New South Wales, Victoria,  
South and West Australia.

U. S. N. M., No. 41556. Samoa. Dr.  
C. H. White. Length 86 to 122 mm.  
Two examples. A. I, 19.

U. S. N. M., No. 52360. Apia, Samoa.  
Bureau of Fisheries. Length 207 to 280  
mm. Three examples. A. I, 19 or 20.  
As Caranx forsteri.

U. S. N. M., No. 52771. Hawaiian Islands.  
Bureau of Fisheries (04056). Length  
265 mm. A. I, 19. As Caranx forsteri.

U. S. N. M., No. 55084. Hawaiian Islands.  
Albatross Collection (2665). Length 248 mm.  
A. I, 18. As Caranx latus.

U. S. N. M., No. 55423. Hilo, Hawaiian  
Islands. Bureau of Fisheries. Length  
92 mm. A. I, 20. As Caranx latus.

U. S. N. M., No. 55367. Hawaiian Islands.  
Bureau of Fisheries (1361). Length 110 mm.  
As Caranx forsteri.

U. S. N. M., No. 65774. Varau, Tonga.  
Albatross Collection. Length 74 to 268 mm.  
Twelve examples. A. I, 19.



base; A. III, 13, I, to 15, I, third spine  
2 to  $2\frac{1}{3}$  in total head length, first  
ray 1 to  $1\frac{3}{5}$ ; caudal 1, emarginate;  
least depth of caudal peduncle  $2\frac{2}{5}$  to  $3\frac{1}{8}$ ;  
pectoral 1 to  $1\frac{1}{5}$ ; ventral spine  $1\frac{2}{5}$ , fin  
 $2\frac{1}{2}$  in combined head and body to caudal  
base.

Back gray brown, sides and below  
paler to whitish. Five broad, deep  
brown transverse bands; first from  
occiput or front predorsal forward to  
eye and down over cheek to lower  
preopercle ridge, less than eye in  
width; second band from base before  
spinous dorsal origin over opercle or

1544  
U. S. N. M., No. 65775. Nukuhiva,  
Marquesas. Albatross Collection.  
Length 95 to 215 mm. 15 examples.  
A. I, 18 to I, 20.

U. S. N. M., No. 65776. Marshall  
Islands. Albatross Collection (09087).  
Length 75 mm. A. I, 19.

U. S. N. M., No. 65778. Suva, Fiji.  
Albatross Collection (08829). Length  
210 mm. A. I, 20.

U. S. N. M., No. 65779. Makemo, Pamotu.  
Albatross Collection (05856). Length 127  
mm. A. I, 18.

U. S. N. M., No. 65780. Funafuti, Ellice  
Islands. Albatross Collection (08979).  
Length 98 mm. A. I, 19.

U. S. N. M., No. 65782. Funafuti, Ellice  
Islands. Albatross Collection. Length  
168 mm. A. I, 19. As Carany forsteri.

U. S. N. M., No. 75893. Banded Satebah,  
Borneo. March 23, 1913. H. C. Raven.  
Length 173 to 238 mm. 3 examples.



lanceolate, subequal to little longer than gill filaments or  $2\frac{1}{4}$  to  $2\frac{1}{2}$  in eye.

Scales 66 to 73 in lateral line to caudal base and 6 to 8 more on latter; tubes  $5\frac{1}{2}$  or  $5\frac{3}{4}$  in lateral line to caudal base and 3 to 5 more on latter; 15 scales above, 30 to  $3\frac{1}{2}$  below between beginning of hind posterior horizontal section of lateral line and anal origin; 20 to 24 predorsal to occiput, 9 rows on cheek to preopercle ridge. Scales with 6 or 7 basal radiating striae; circuli moderately fine.

D. VIII — I, 15, I, fourth spine 1 to  $1\frac{1}{8}$  in total head length, first ray 2 to  $2\frac{1}{8}$  in combined head and body to caudal

U. S. N. M., No. 85111. Hanalei River,  
Hawaii. Albatross Collection. Length  
90 to 170 mm. A. I, 19. As Carangus  
latus.

U. S. N. M., one example. Funafuti,  
Ellice Islands. Length 94 mm.  
Albatross Collection. A. I, 20.  
Venter 35. As Carangus forsteri.

A. N. S. P., two examples. Philippines.  
1923. Rev. Joseph Clemmens. Length 165-  
to 185? mm.



depth  $1\frac{7}{8}$  to 2; head  $2\frac{3}{5}$  to 3, width  
 $2\frac{2}{3}$  to  $2\frac{3}{4}$ . Snout  $3\frac{2}{3}$  to  $4\frac{1}{3}$  in head  
from snout tip; eye  $3\frac{1}{4}$  to 4, greater  
than snout in young to subequal with  
age, greater than interorbital; maxillary  
reaches to or  $\frac{1}{8}$  in eye, expansion 2 to  
 $2\frac{2}{5}$  in eye, length 3 to  $3\frac{1}{4}$  in head  
from snout tip; interorbital  $5\frac{1}{5}$  to  $5\frac{3}{4}$ ,  
very slightly convex; preopercle edge  
strongly denticulate, those on lower edge  
turned backward of which 2 at angle  
somewhat enlarged and point upward;  
usually 5 denticles on lower preorbital  
edge, posterior usually largest and  
points back. Gill rakers 6 to 8 + 18 to 20,

Caranx stellatus Eydoux and Soleyet

Caranx stellatus Eydoux and Soleyet,  
 Voy. Bonite, Zool., vol. 1, p. 167, pl. 3,  
 fig. 2, 1841 (type locality, Hawaiian  
 Islands) — Jouan, Mém. Soc. Sci. Nat. Cherbourg, vol. 17, p. 91, 1873.  
Jordan and Jordan,  
 Mem. Carnegie Mus., vol. 10, no. 1, p. 40,  
 December 1922 (Honolulu). — E. K.  
Jordan, Proc. U. S. Nat. Mus., vol.  
 66, p. 15, 1925 (Hawaii). — Jordan,  
Evermann, Tanaka, Proc. Cal. Acad.  
 Sci., ser. 4, vol. 16, p. 655, November 14,  
 1927 (Honolulu). — McCulloch, Austral. Mus. Mem., no. 5, pt. 2, p. 187, fig. 10, 1929 (reference).  
~~Here~~ Here,  
 Journ. Pan Pac. Res. Inst., vol. 6, no. 4,  
 p. 5, Oct.-Dec. 1931 (Hathorne Sound  
 and Tenibuli, Solomons; p. 12  
 New Hebrides); vol. 7, no. 1, p. 4,  
 Jan. - March 1932 (Tahiti).



Nov 29

1703

Sillago boutani Pellegrin

Sillago boutani Pellegrin, Bull. Soc.  
Zool. France, vol. 30, 1905, p. 86. Baie  
de Hatan, Alg.

Depth 7; head  $2\frac{7}{8}$ . Eye 7 in head, 3  
in snout,  $1\frac{1}{2}$  in interorbital. Teeth  
villiform. Preopercle denticulate. Scales  
74 in lateral line, 5 above,  $1\frac{1}{2}$  below to  
middle of belly, strongly ciliated; 3  
rows on cheek. D. XI, I, 21; A. II, 22;  
caudal subtruncate; caudal peduncle depth  
 $1\frac{1}{2}$  its length; pectoral  $1\frac{1}{2}$  in head.  
Yellowish olive on back, pale on sides and  
abdomen. Jaws and opercles with orange  
yellow. Two orange yellow lines along  
flanks. Fins uniformly gray. Some  
traces of punctuations on first dorsal  
rays. Length 180 mm. (Pellegrin)  
Indo China.

— Fowler, Mem. Bishop Mus., vol. 11,  
no. 6, p. 404, 1934 New Hebrides;  
Tongatabu; Samoa; ? Proc. Acad.  
Nat. Sci. Philadelphia, vol. 86, 1934,  
p. 444 (note on Delagoa Bay specimens).

Caranx Caranx stellatus Weber and  
Beaufort, Fishes Indo Austral.  
Archip., vol. 6, p. 253, <sup>fig. 48,</sup> 1931 (compiled).



~~1702~~  
2 examples. A. N. S. P. Orani, Bataan  
Province, Luzon. April 28, 1923. Rev.  
Joseph Clemens. Length 124 to 174 mm.

1 example. A. N. S. P. Vigan, Ilocos  
Sur, Luzon. February 6, 1923. Rev.  
Joseph Clemens. Length 125 mm.

5 examples. A. N. S. P. Santa Maria,  
Ilocos Sur, Luzon. January 28, 1923.  
Rev. Joseph Clemens. Length 89 to 110 mm.

2 examples. A. N. S. P. San Fernando Bay,  
San Juan, Luzon. February 23, 1923. Rev.  
Joseph Clemens. Length 86 to 110 mm.

Caranx caeruleoprinnatus not Rüppell  
Cuvier, Hist. nat. Poiss., vol. 9, p. 90,  
 1933 (New Guinea) — Sauvage, Hist.  
 Madagascar, Poiss., p. 331, 1891.

Caranx punctatus not Agassiz  
 (Quoy and Gaimard) Cuvier, Hist. nat.  
 Poiss., vol. 9, p. 90, 1933 (name) in text.  
 — Bleeker, Verh. Batavia, Genoot.  
 (Nat. Ich. Bengal.), vol. 25, p. 44, 1853.

Caranx melampygus not Cuvier  
Münther, Journ. Mus. Godeffroy, vol.  
 5, pt. 11, p. 133 (not plate), 1876  
 (part) — Day, Fishes of India, pt. 2,  
 p. 214, 1876 (part) — Macleay,  
 Proc. Linn. Soc. New South Wales,  
 vol. 7, pt. 3, p. 355, 1882 (New Guinea).  
 — Jordan and Seale, Bull. Bur.  
 Fisher., vol. 25, p. 230, 1905 (1906)  
 (part) — McCulloch, Mem. Queensland  
 Mus., vol. 8, pt. 1, p. 70, Jan. 30, 1924  
 (part).



~~4707~~

72692 U.S.N.M. Java. Bryant  
and Palmer. Length 133 mm.

84181 U.S.N.M. Philippines.  
Dr. F. Baker. Length 122 mm.

27781 and 27782 A.N.S.P. Padang, Sumatra.  
A.C. Harrison and H. M. Miller. Length 123  
to 173 mm.

47458 to 47471 A.N.S.P. Philippines.  
Commercial Museum of Philadelphia.

52855 A.N.S.P. Santa Maria, Luzon. January  
26, 1923. Rev. Joseph Clemens. Purchased.  
Length 80 mm.

53058 A.N.S.P. Durban beach, Natal. 1927.  
H. W. Bell Marley. Length 142 mm.

53100 A.N.S.P. Durban beach. June 23, 1923.  
H. W. Bell Marley. Length 136 mm.

53166 and 53167 A.N.S.P. Bombay, India.  
1924. Prof. F. Hallberg. Length 98 to 162 mm.

Carangus melampygus Jordan  
and Evermann, Bull. U. S. Fish  
Comm., vol. 23, pt. 1, p. 192, 1903  
(1905) (part).

? Caranx fishikawai Wakaya



and Seale, Bull. Bur. Fisher., vol. 26, 1906  
(1907), p. 72 (Bacon and Samoa). — Seale  
and Bean, Proc. U. S. Nat. Mus., vol. 33,  
1907, p. 24 (Zamboanga).

Apogon (Amia) fasciatus Klunzinger,  
Fische Roth. Meer., 1884, p. 20.

Amia balinensis Bleeker, Verh. Batav.  
Genootsch. (Percoid.), vol. 22, 1849, p. 28.  
Boeling, Bali Island.

Apogon porpur Thollière, Fauna Wood-  
lark, 1857, p. 143. Woodlark Island.

Apogon melanotaenia Regan, Journ.  
Bombay Nat. Hist. Soc., vol. 16, no. 2, 1905,  
p. 321, pl. 3 (c.) fig. 4. Chastar, Mekran  
Coast; Karachi; Nicobars; Zanzibar. —

Regan, Ann. Durban Mus., vol. 1, pt. 5, 1917,  
p. 458 (Durban). — Barnard, Ann. South Afr. Mus.,  
vol. 21, 1927, p. 519 (Natal coast, 0 to 33 fathoms).

Amia melanotaenia Van Beneden, Fisher.  
Marine Biol. Surv. South Africa, Rep.  
no. 3, 1922 (1924), p. 13 (off South Africa).

Caranx sansui (not Forsk. Fowler,  
Proc. Acad. Nat. Sci. Philadelphia,  
vol. 77, 1925, p. 216 (Delagoa Bay).

Caranx ascensionis not Osbeck Fowler,  
Mem. Bishop Mus., vol. 10, p. 145 (not  
figure), 1928 (part).



1906

32695 U.S.N.M. Indian Archipelago.  
Leiden Museum. Length 257 mm.

30583 U.S.N.M. New Guinea.  
Australian Museum. Length 266 to 279 mm.  
2 examples.

49324 U.S.N.M. Red Sea. Bellotti.  
Length 172 mm?

49804 U.S.N.M. Tokyo, Japan.  
Albatross Collection. Length 181 mm.

51508 U.S.N.M. Korea. Hale and Joly.  
Length 134 mm.

51989 U.S.N.M. Negros, Philippines.  
Dr. Bashford Dean. Length 52 to 191 mm.  
4 examples.

56296 U.S.N.M. Cavite. George A. Lund.  
Length 104 to 145 mm. 3 examples.

59669 U.S.N.M. Yamagawa, Japan.  
Dr. H. M. Smith. Length 111 mm.

72276 U.S.N.M. Aparri, Philippines.  
R. C. MacGregor. Length 96 to 110 mm. 2 examples.

Depth  $2\frac{1}{2}$  to  $2\frac{3}{4}$ ; head  $3\frac{1}{8}$  to  $3\frac{1}{3}$ , width  $2\frac{1}{8}$  to  $2\frac{1}{4}$ . Snout  $2\frac{3}{5}$  to  $2\frac{4}{5}$  in head from snout tip; eye  $4\frac{2}{5}$  to  $6\frac{3}{5}$ ,  $1\frac{3}{4}$  to  $2\frac{3}{4}$  in snout,  $1\frac{1}{4}$  to  $1\frac{3}{4}$  in interorbital, adipose lids over last third of eye; maxillary reaches  $\frac{1}{4}$  to  $\frac{2}{5}$  in eye, expansion 1 to  $1\frac{1}{3}$  in eye, length  $2\frac{1}{2}$  to  $2\frac{3}{5}$  in head from snout tip; interorbital  $3\frac{1}{3}$  to  $3\frac{3}{4}$ , elevated convexly. Gill rakers  $9 + 18$ , lanceolate, equals gill filaments or  $1\frac{1}{3}$  to  $1\frac{2}{5}$  in eye.

Scales  $44$  to  $46 + 33$  to  $35$  in lateral lines; 19 or 20 scales above arch of lateral line to soft dorsal origin, 30 to 32 below. Arch of lateral line  $1\frac{1}{3}$  to  $1\frac{1}{2}$  in straight section.



Breast and chest completely scaled.

D. I, VIII - I, 20, I to I, 23, I, fourth spine  $2\frac{1}{10}$  to 3 in total head length, first branched ray  $1\frac{1}{4}$  to  $1\frac{1}{2}$ ; A. II - I, 19, I or I, 20, I, second spine 6 to  $6\frac{1}{2}$ , first branched ray  $1\frac{3}{5}$  to  $2\frac{1}{10}$ ; caudal  $1\frac{1}{8}$  to  $1\frac{1}{5}$ , forked; ventral  $2\frac{1}{8}$  to  $2\frac{2}{5}$ , rays I, 5; pectoral little longer than head, reaches little beyond angle of lateral line, length  $2\frac{4}{5}$  to  $2\frac{7}{8}$  in fish without caudal.

Back brown, below silvery white. Sides, especially above, with small, scattered, irregular black spots or dots. Iris gray. Opercle without dark spot. Spinous dorsal

dark brown. Soft dorsal  
pale basally, lobe black  
above and fin gray marginally.  
Paired fins pale brownish,  
ventral more or less dark  
or dusky.

Delagoa Bay, Madagascar,  
India, East Indies, Melanesia,  
Polynesia, Cocos Island.



U. S. N. M., No. 50073. Cocos  
Island. Stanford Expedition.  
Length 428 mm. As Caranx  
melampygus. A. I, 19, I. Body  
well spotted with black, color  
dark. Soft dorsal and hind edge  
of upper caudal lobe narrowly  
whitish.

U. S. N. M., No. 55085. Hawaiian  
Islands. Bur. of Fisheries (2707,  
2708). Length 264 to 268 mm. Two  
examples. As Caranx marginatus.

U. S. N. M., two examples. Vavau, Tonga  
Islands. Albatross Collection (A. 124,  
A. 127). Length 293 to 330 mm.

? A. N. S. P., one example. Delagoa Bay,  
Portuguese East Africa. 1922. H. W.  
Bell Marley. Length 179 mm. A. I, 16, I.

33163 A.N.S.P. Toronto, Victoria.  
Mrs. Agnes F. Kenyon. Length 167 mm.



1555

Caranx xanthopygus <sup>Cuvier</sup> ~~Valenciennes~~

Caranx xanthopygus <sup>Cuvier</sup> ~~Valenciennes~~,  
Hist. nat. Poiss., vol. 9, p. 82, 1833  
(type locality, Mauritius). —  
Wakiya, Ann. Carnegie Mus., vol. 15,  
p. 186, pl. 24, fig. 3, July 1, 1924  
(Tosa; Ryukyu; Formosa). —  
E. K. Jordan, Proc. U. S. Nat. Mus.,  
vol. 66, p. 16, 1925 (note). —  
Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 86, 1934, p. 446,  
fig. 25 (katal); Mem. Bishop  
Mus., vol. 11, no. 6, p. 404, 1934  
(compiled).

Cuvier<sup>129</sup>

Villago ciliata Cuvier

129

Villago ciliata Cuvier, Hist. nat. Poiss.,  
vol. 3, 1829, p. 415. Southern Seas

(Peron).  $\frac{1}{m}$  Valenciennes, Règne Animal  
Cuvier, 3<sup>e</sup> ed., Poiss., 1839, pl. 13, fig. 2.

$\frac{1}{m}$  Günther, Cat. Fishes Brit. Mus., vol. 2, 1860,  
p. 245 (Tasmania, Australia, Port Jackson,  
Cape York).

$\frac{1}{m}$  Gill, Proc. Acad. Nat. Sci.  
Philadelphia, 1860, p. 504 (compiled).  $\frac{1}{m}$

Kner, Reise Novara, Fische, 1865, p. 127

(Sydney).  $\frac{1}{m}$  Steindachner, Sitz. Ber. Akad.

Wiss. Wien, math.-naturw. Klasse, vol. 53,

pt. 1, 1866, p. 443 (Port Jackson).  $\frac{1}{m}$  Castelnau,

Proc. Zool. Acclimatiz. Soc. Victoria, vol. 2,

1873, p. 113 (Houma, New Caledonia) ~~Port Jackson~~

~~Port Jackson~~ ~~Australia~~.  $\frac{1}{m}$  Alleyne and

Macleay, Proc. Linn. Soc. New South Wales,

vol. 1, 1876, p. 279 (Cape York; Percy Islands).

$\frac{1}{m}$  Klunzinger, Sitz. Ber. Akad. Wiss. Wien,

math.-naturw. Klasse, vol. 50, pt. 1, 1879, p.



Scomber carangus (part) Bloch,  
Natürliches. Ausland. Fische, vol.  
7, p. 69, pl. 340, 1793 (Moluccas  
[not Antilles or Brazil]).

33 fathoms.

Apogon taeniophorus Regan, Journ.  
Linn. Soc. London, vol. 12, ser. 2, 1907,  
p. 226. Maldives.

Amia punctata Smith and Radcliffe,  
Proc. U. S. Nat. Mus., vol. 41, 1911, p. 153, fig.  
1. Malunipa Island, Philippines; Sipadan  
Island, Borneo.



Caranx carangus ~~Linnaeus~~ Cuvier,  
 Hist. Nat. Poiss., vol. 9, p. 91, 1833 (part).  
 — Günther, Cat. Fish. Brit. Mus., vol.  
 2, p. 448, 1860 (India; Madras;  
 Ambonia; Sumatra). — Kner, Reise  
 Novara, Fische, p. 157, 1865 (no locality).  
 — Day, Fishes of India, pt. 2, p. 215, pl.  
 50, fig. 4, 1876 (Madras).

— Macleay, Proc. Linn. Soc. New South  
 Wales, vol. 7, 1882, p. 356 (New Guinea).

— Smith and Seale, Proc. Biol. Soc.  
 Washington, vol. 19, 1906, p.

Mindanao. — Seale and Bean,  
 Proc. U. S. Nat. Mus., vol. 33, 1907, p.  
 242 (Zamboanga).

— Sauvage, Hist. Madagascar, Poiss.,  
 p. 325, 1891 (note), p. 508 (reference).

— Regan, Ann. Natal Mus., vol. 1, pt. 3,  
 p. 246, May 15, 1908 (Durban Bay). —  
Gilchrist and Thompson, Ann. South  
 African Mus., vol. 6, pt. 13, p. 242, 1909 (Natal).

Caner 29

7700

Villago parvisquamis Gill

Villago parvisquamis Gill, Proc. Acad.  
Nat. Sci. Philadelphia, 1861, p. (504)

505. Kanagawa, near Yokohama.  $\frac{1}{m}$

Jordan and Snyder, Proc. U. S. Nat.

Mus., vol. 24, 1912, p. 487 (Tokyo Bay).

$\frac{1}{m}$  Franz, Abhandl. Kon. Bayer. Akad.

Wiss., Math.-physik. Klasse, ~~vol. 26, p. 1~~

vol. 4, Suppl. band 1, 1910, p. 83

(Yokohama).  $\frac{1}{m}$  Jordan and H. Bts.,

Mem. Carnegie Mus., vol. 10, no. 2, June

27, 1925, p. 248 (Tokyo market).



- Beaufort, Bijdr. dierk., Amsterdam,  
p. 133, 1913 (Buntan).
- Regan, Trans. Zool. Soc. London,  
vol. 20, p. 276, 1914.
- Gilchrist and Thompson, Ann. Durban  
Mus., vol. 1, pt. 4, p. 384, May 21, 1917 (reference).
- Hora, Mem. Roy. Asiatic Soc. Bengal,  
vol. 6, p. 484, 1924 (Singgora).
- Barnard, Ann. South African Mus.,  
vol. 21, pt. 2, p. 545, Oct. 1927 (Katal;  
Delagoa Bay).
- Duncker and Mohr, Mitteil. Zool.  
Mus. Hamburg, vol. 44, p. 79, 1929.

23976 to 23980. Lunihe Strait, Celebes.  
November 11, 1909. Length 45 to 64 mm.

23502 and 23503. Una Una Road,  
Binaung Unang Island, Gulf of Tomini,  
Celebes. November 17, 1909. Length 50 to  
65 mm.

18304. West of Malibagu Point, Celebes.  
November 21, 1909. Length 62 mm.

23447 and 23448. Doworra Island,  
Patiente Strait. December 2, 1909.  
Length 55 to 58 mm.

23488 and 23489. Kayoa Island.  
November 29, 1909. Length 36 to 65 mm.

23470 and 23471. Maitara Island.  
November 26, 1909. Length 54 to 68 mm.

23349. Makyan Island. November 29,  
1909. Length 65 mm.

23109 and 23110, 23630, 24011. Powati  
Harbor, Makyan Island. November 28, 1909.  
Length 50 to 67 mm.



Caranx (Caranx) carangus Weber and  
Beaufort, Fishes Indo-Austral.  
Archip., vol. 6, p. 257, 1931 (East  
Indies).

Carangus carangus Bleeker, Rech.  
Faune Madagascar, pt. 4, p. 99, 1874  
(reference); Verh. Akad. Wet.  
Amsterdam, vol. 18, p. 18, 1879  
(Mauritius), p. 14 (Japan).

86101 U.S.N.M. Hanking, China.  
C. Ping. Length 123 mm.

87031 U.S.N.M. Foochow.  
Lowerby. Length 75 to 110? mm. 3 examples.

86368 U.S.N.M. China.  
Lowerby. Length 55 to 95 mm. 3 examples.



Caranx ekala Valenciennes, Hist.

Nat. Poiss., vol. 9, p. 117, 1833

(type locality, Vizagapatam). —

Bleeker, Nat. Tijds. Ned. Indie,

vol. 3, 1852, p. 235 (Amboina, p.

690 (Wahai; Verh. Batavia.

Genoot. (makreel., vol. 24, 1852,

p. 59 (Batavia; Pasuruan);

(hal. Ichth. Bengal, vol. 25, p.

44, 1853 (reference; Nat. Tijds.

Ned. Indie, vol. 6, 1854, p. 457

(Amboina); vol. 7, 1854, p. 227

(Macassar), p. 228 (Manado, Celebes),

p. 312 (Tjiringin), p. 361 (Batjan);

vol. 9, 1855, p. 432 (Groot Obij), p.

493 (Amasing and Madawang

Rivers, Batjan); vol. 10, 1856, p.

Depth  $4\frac{2}{5}$  to  $4\frac{1}{2}$ ; head  $3\frac{1}{5}$  to  $3\frac{1}{3}$ , width  $2\frac{1}{10}$  to  $2\frac{1}{8}$ . Snout 2 to  $2\frac{1}{10}$  in head; eye  $5\frac{1}{2}$  to  $6\frac{1}{2}$ ,  $2\frac{4}{5}$  to  $3\frac{1}{8}$  in snout,  $1\frac{1}{5}$  to  $1\frac{3}{5}$  in interorbital; maxillary reaches  $1\frac{7}{8}$  to  $2\frac{1}{3}$  in snout,  $4\frac{1}{5}$  to  $4\frac{1}{4}$  in head; broad bands of villiform teeth in jaws and on vomer; interorbital  $3\frac{7}{8}$  to  $4\frac{1}{4}$ , broadly convex; preopercle edge with low, sharp, inconspicuous denticles. Gill rakers  $3 + 7$ , short, robust, lanceolate,  $3\frac{1}{4}$  in gill filaments, which  $1\frac{3}{4}$  in eye.

Scales 61 to 63 in lateral line to caudal base and 6 or 7 more on latter, 6 above, 10 or 11 below, 31 to 34 predorsal forward opposite nostrils; 5 rows



1561

360 (Ternate); vol. 12, 1856, p. 193  
(Ternate); Act. Soc. Sci. Ind.  
Néerl., vol. 1, no. 3, 1856, p. 9  
(Macassar); Verh. Batavia.  
Genoot. (hal. Ichth. Japan), vol.  
26, 1857, p. 5 (Nagasaki; Nat.  
Tijds. Ned. Indie, vol. 13, 1857, p.  
479 (Prigi, Java); Act. Soc. Sci.  
Ind. Néerl., vol. 2, no. 7, 1857, p.  
5 (Amboina); vol. 3, no. 3, 1857-  
58, p. 5 (Japan); Nat. Tijds. Ned.  
Indie, vol. 19, 1859, p. 435  
(Sumbawa); Verslag. Kon. Akad.  
Wet. Amsterdam, vol. 12, 1861, p.  
31 (Singapore).

Depth  $6\frac{1}{3}$  to  $6\frac{3}{5}$ ; head  $3\frac{4}{5}$  to  $3\frac{7}{8}$ , width  $2\frac{1}{5}$  to  $2\frac{1}{4}$ . Snout  $2\frac{1}{4}$  to  $2\frac{1}{3}$  in head; eye  $5\frac{1}{2}$  to  $6\frac{1}{8}$ ,  $2\frac{2}{5}$  in snout,  $1\frac{1}{4}$  to  $1\frac{1}{3}$  in interorbital; maxillary reaches  $1\frac{7}{8}$  to 2 in snout, length  $4\frac{2}{3}$  to  $4\frac{3}{4}$  in head; teeth villiform, in broad bands in jaws and on vomer; interorbital  $4\frac{1}{4}$  to  $4\frac{7}{8}$ , slightly elevated and slightly convex; preopercle edge rough or weakly jagged. Gill rakers  $2 + 7$ , short, strong, lanceolate,  $2\frac{1}{2}$  in gill filaments, which  $1\frac{1}{4}$  in eye.

Scales 83 to 88 counted along lateral line to caudal base and 10 more on latter; tubular scales 80 or 81 in lateral line to caudal base and 10



Caranx cynodon Bleeker, Nat. Tijds.  
 Ned. Indie, vol. 1, p. (355) 362,  
 1850 (type locality, Batavia);  
~~Id.~~ vol. 12, p. 214, 1856 (Nias);  
 Act. N. V. Sci. Ind. Néerl., vol. 3,  
 no. 1, p. 6, 1857-58 (Sibogha). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 447, 1860 (copied). —  
 — Kner, Reise Novara, Fische, p. 158, 1865 (Java).  
 — Wermann and Seale, Bull. Bur.  
 Fisher., vol. 26, p. 64, 1906 (1907)  
 (Bacon?). — Fowler, Proc. Acad.  
 Nat. Sci. Philadelphia, vol. 79,  
 p. 270, 1927 (Philippines [not type  
 of Caranx semisomnus]).

Caranx Caranx cynodon Weber and  
Beaufort, Fish. Indo-Austral.  
 Archip., vol. 6, p. 252, 1931 (copied).  
Selar cynodon Bleeker, Verh. Batavia.  
 Genoot. (makreel.), vol. 24, p. 57, 1852  
 (Batavia).

least depth of caudal peduncle  $3\frac{1}{4}$  to  $3\frac{1}{2}$ ; pectoral  $1\frac{1}{4}$  to  $1\frac{1}{2}$ ; ventral  $1\frac{2}{5}$  to  $1\frac{3}{5}$ .

Back dull brown, below whitish. Iris gray. Fins brown, spinous dorsal gray.

East Indies, Philippines.

A.N.S.P.

47648 and 47649, Philippines. Commercial  
Museum of Philadelphia. Length 168 to 188  
mm. ~~many other specimens~~



Caranx hippos (not Linnaeus) Peters,  
Monatsb. Akad. Wiss. Berlin,  
1876 (1877), p. 836 (Amboina;  
New Britain). — Jordan and  
Snyder, Annot. Zool. Japon., vol.  
3, 1901, p. 67 (reference). — Fowler,  
Proc. Acad. Nat. Sci. Philadelphia,  
vol. 79, 1927, p. 270 (Vigan, Rio  
Grande at Mindanao).

— Ashima, Philippine Journ. Sci.,  
vol. 26, no. 3, p. 374, March 3, 1925  
(Tainan, Formosa).

1718

22593 U.S.N.M. Iwano. Japanese  
Government. Length 190 mm.

26241 U.S.N.M. Japan. P. L. Jouey.  
Length 190 mm.

26241 U.S.N.M. Japan. Prof. E. V.  
Morse. Length 80 to 222 mm. 9 examples.

37984 U.S.N.M. East Asia,  
H. M. Ferebee. Length 132 mm.

44876 U.S.N.M. Japan. Japanese  
Government. Length 187 to 220 mm. 3 examples.

57528 U.S.N.M. Japan. P. L. Jouey.  
Length 87 to 92 mm.

57591 U.S.N.M. Japan. P. L. Jouey.  
Length 156 mm.

59670 U.S.N.M. Kochi. Dr. H. M. Smith.  
Length 147 mm.

71348 U.S.N.M. Kagoshima. Albatross  
Collection. Length 107 to 180 mm. 8 examples.

76635, 76636 U.S.N.M. Japan, Formosa.  
Dr. Fred Baker. Length 86 to 102 mm. 10 examples.



Caranx rhabdotus Jenkins, Bull. U.  
S. Fish Comm., vol. 22, p. 444, fig. 16,  
1902 (1903) (type locality, Honolulu):

~~1075~~

20598. Lingayen Gulf, Luzon. May 11,  
1909. Length 213 mm.

5569 to 5573, 7404. Malaga River, Hinunangan  
Bay, Leyte Island. July 30, 1909. Length 178  
to 241 mm.

11645. Malampaya Island. December 26, 1908.  
Length 118 mm.

19605. Manila harbor. January 13, 1908.  
Length 74 mm.

<sup>3</sup>  
4 examples. Manila harbor. March 16, 1908.  
Length <sup>100</sup>4 to 115 mm.

9 examples. Manila harbor. December 30, 1909.  
Length 43 to 103 mm.

11592. Manila market. March 16, 1908.  
Length 197 mm.

~~8048, 8049. Manila market. March 18, 1908.  
Length 123 to 126 mm.~~

5 examples. Manila market. December 12, 1909.  
Length 97 to 163 mm. Silvery, greenish on  
back. A silvery lateral stripe. Dorsal



Caranx sexfasciatus (not Duoy and  
Gaimard). Fowler, Mem. Bishop  
Mus., vol. 10, p. 149, 1928 (part)..

5961, 12086. Cavite market. December 1, 1908. Length 117 to 172 mm.

7520, 7530. Cotabato, Mindanao. May 20, 1909. Length 107 to 111 mm.

~~7836. Cebu market. April 7, 1908.~~

~~Length 203? mm.~~

22516. Dagupan, Luzon. March 19, 1908. Length 150 mm.

22116. Davao, Mindanao. May 16, 1908. Length 101 mm.

20087. Dumaca River, Luzon. February 25, 1909. Length 83 mm.

16331. Endeavor Strait, north west coast Palawan. December 23, 1908. Length 121 mm.

7 examples. Estero, Sablayan Bay, Mindoro. December 13, 1908. Length 46 to 69 mm.

6025, 6031. Hinunangan Bay, Leyte Island. July 30, 1909. Length 80 to 109 mm.

19377. Iloilo market. March 28, 1908. Length 107 mm.



Depth  $2\frac{4}{5}$  to 3; head  $3\frac{2}{5}$  to  $3\frac{1}{2}$ , width 2 to  $2\frac{1}{5}$ . Snout  $3\frac{1}{5}$  to  $3\frac{1}{4}$  in head from snout tip; eye  $4\frac{1}{4}$  to  $4\frac{2}{5}$ ,  $1\frac{2}{5}$  in snout,  $1\frac{1}{6}$  to  $1\frac{1}{4}$  in interorbital, hind adipose lids invading  $\frac{1}{3}$  to  $\frac{2}{5}$  of eye; maxillary reaches  $\frac{2}{5}$  to  $\frac{1}{2}$  in eye, expansion  $1\frac{1}{2}$  to  $1\frac{3}{4}$  in eye, length  $2\frac{1}{3}$  to  $2\frac{2}{5}$  in head from snout tip; interorbital  $3\frac{1}{4}$  to  $3\frac{2}{3}$ , convexly elevated. Gill rakers 7+17, lanceolate, equal gill filaments or  $1\frac{1}{5}$  in eye.

Scutes 33 to 36 of which last 2 or 3 on caudal base, arch  $1\frac{1}{4}$  to  $1\frac{2}{5}$  in straight section.  
<sup>of lateral line</sup>  
 Chest and breast naked below, except small patch of small scales close before ventrals.

D. I, VIII - I, I, 20, I - or I, I, 22, I,  
 third spine 2 to  $2\frac{2}{5}$  in total  
 head length, first branched rays  
 $1\frac{3}{5}$  to  $1\frac{3}{4}$ ; A. II - I, I, 16, I - to  
I, I, 18, I, first branched ray  
 $1\frac{2}{3}$  to 2; upper caudal lobe 1 to  
 $1\frac{1}{10}$ ; least depth of caudal  
 peduncle  $7\frac{2}{5}$  to 8; ventral 2  
 to  $2\frac{1}{8}$ ; pectoral  $2\frac{3}{4}$  to 3 in fish  
 without caudal, rays II, 19.

Above brown, sides and below  
 whitish, with silvery reflections.  
 Lower fins much lighter to  
 whitish. No dark spot on  
 opercle.

Natal, Delagoa Bay, Madagascar,  
 India, Malaya, East Indies,  
 Philippines, Melanesia, Polynesia,  
 Hawaii.



1568

Wakuija thinks Caranx rhabdotus  
Jenkins is likely this species  
as its eye is almost as long as  
the snout and the lateral line  
curving more anteriorly and  
more strongly than in Caranx  
sexfasciatus.

14038, 14040. Baganga Bay.

May 13, 1908. Length 117 to 123 mm.

~~Length 117 to 123 mm. A. II - I, 18, I.~~  
20259. Baganga Bay. May 15, 1908. Length 122 mm.  
5462. Batud River, Luzon.

June 15, 1909. Length 95 mm.

A. II - I, 18, I.

21240. Below mouth of Mindanao River, Cotabato, Mindanao. May 20, 1908. Length 61 mm. A. II - I, 18, I.

Eighteen examples. Cebu harbor. August 12, 1909. Length 20 to 47 mm. Dark brown shade or blotch on opercle. A. II - I, 18, I.

11723. Cotabato market.

May 20, 1908. Length 135 mm.

A. II - I, 18, I.

Two examples. Iloilo River tidal.

June 18, 1909. Length 61 to 70 mm.

A. II - I, 18.

19927, 20990. Parang Parang, Mindanao.

May 23, 1908. Length 103 to 107 mm.

A. II - I, 18, I.



75438 U. S. N. M. Nagasaki.  
Jordan and Snyder. Length 200 to 220  
mm. 2 examples.

75439 U. S. N. M. Tokyo. Jordan  
and Snyder. Length 175 mm.

75440 U. S. N. M. Isumichi.  
Jordan and Snyder. Length 99 to 140 mm.  
3 examples.

75441 U. S. N. M. Kawatama.  
Jordan and Snyder. Length 205 mm.

75922 U. S. N. M. Japan? O. L. Jouy.  
Length 300 mm.

One example. Philippines.  
Length 52 mm. A. II - I, 18.

One example. Port Ganselo, Luzon.  
July 13, 1908. Length 60 mm.  
A. II - I, 19.

20897. Pucot, Mariveles River.  
January 27, 1909. Length 120 mm.  
A. II - I, 18, I.

8781. Santiago River, Pagapas  
Bay, Luzon. February 20, 1909.  
A. II - I, 18, I.

8336 to 8338. Subig Bay.  
January 7, 1908. Length 87 to 107 mm.  
A. II - I, 18, I.

Six examples. Tilig, Lubang.  
July 14, 1908. Length 56 to 84 mm.  
A. II - I, 18, I.



shows but 23 soft dorsal rays and  
the entire preopercle edge denticulate.  
The nominal Sciaena nibe Jordan  
and Thompson does not seem to me  
to differ.

22543 U.S.N.M. Japan. Japanese  
Government. Length 265<sub>mm</sub>. Is Corvina sina.

44872 U.S.N.M. Japan. Japanese  
Government. Length 25<sub>mm</sub>. Is Corvina sina.

57595 U.S.N.M. Japan. P. L. Jouy.  
Length 188<sub>mm</sub>. Is Corvina schlegelii:

57728 U.S.N.M. Kochi, Japan. Dr.  
H. M. Smith. Length 146<sub>mm</sub>.

67331 U.S.N.M. Wakkanou, Japan.  
Jordan and Snyder. Length 380<sub>mm</sub>.  
Type of Sciaena nibe.

1571

Seven examples. Kema, Dutch  
East Indies. November 13, 1909.  
Length 73 to 84 mm. A. II - I, 18 or  
19.

Thirteen examples. Eiki, Buru.  
December 9, 1909. Length 48 to 78 mm.  
A. II - I, 18, I.

21486. Tifer Bay, Buru.  
December 10, 1909. Length 67 mm.  
A. II - I, 18, I.



156

with 10 to 19 transverse series of  
basal elements; cirruli fine.

D. X or XI, I, 26, I to 28, I, fourth  
spine  $2\frac{1}{5}$  to  $2\frac{1}{2}$  in total head length,  
first ray  $3\frac{2}{5}$  to  $3\frac{3}{4}$ ; A. II, 7, I, second  
spine  $4\frac{1}{2}$  to 6, first ray  $2\frac{3}{4}$  to  $3\frac{1}{3}$ ;  
caudal  $1\frac{1}{3}$  to  $1\frac{1}{2}$ , cuneate; least depth  
of caudal peduncle  $3\frac{2}{5}$  to  $3\frac{4}{5}$ ; pectoral  
 $1\frac{1}{5}$  to  $1\frac{1}{4}$ ; ventral  $1\frac{3}{4}$  to  $1\frac{7}{8}$ .

Back brown, sides and below silvery  
white. Iris white. Spinous dorsal  
with membranes brown to dusky. Soft  
dorsal and caudal pale brownish,  
other fins whitish.

India, China, Formosa, Korea, Japan.  
This species greatly resembles Bleeker's  
figure of Pseudosciaena sieneus, which

A. N. S. P., two examples. Vigan,  
Philippines. 1923. Rev. Joseph  
Clemens. Purchased.

A. N. S. P., one example. Rio  
Grande, Mindanao. Bureau of  
Fisheries. As Caranx carangus.

A. N. S. P., two examples. Natal.  
1931. H. W. Bell Marley. Length 283 to  
370 mm.



12602 U.S.N.M. New South Wales.  
British Museum. Length 50 mm.

40038 to 40040 U.S.N.M. Port Jackson.  
Length 81 to 176? mm.

42063 to 42067 U.S.N.M. Port Jackson.  
Australian Museum. Length 193 to 198 mm.  
2 examples.

47783 U.S.N.M. Port Jackson.  
Australian Museum. Length 153 mm.

47784 U.S.N.M. Melbourne, Victoria.  
~~Length~~ Australian Museum. Length 198? mm.

48808 U.S.N.M. Port Jackson. J.L. Ogilby.  
Length 86 to 109 mm. 3 examples.

59947 U.S.N.M. Port Jackson. D.G. Stead.  
Length 165 mm.  
59982 U.S.N.M. Port Jackson. D.G. Stead.  
Length 70 mm.

Caranx sanson (Forsk.)

Scomber sanson Forsk.,  
 Descript. Animal., pp. 12, 56,  
 1775 (type locality, Lohajal).  
 — Bonnaterre, Tabl. Ichth., p.  
 142, 1788 (Red Sea). — Gmelin,  
 Syst. Nat. Linn., pt. 1, p. 1334,  
 1789 (copied). — Walbaum, Arted.  
 Pisc., vol. 3, p. 217, 1792 (copied).

Caranx sanson Lacépède, Hist.  
 Nat. Poiss., vol. 3, pp. 59, 75, 1802  
 (compiled). — Elera, Cat. Fauna  
 Filipinas, vol. 1, p. 572, 1895 (Cebu).



207  
Amia doederleini (Jordan and Snyder)

Apogon doederleini Jordan and Snyder,  
Proc. U. S. Nat. Mus., vol. 23, 1901, p. 901,  
fig. 6. Kagasaki.

— Wakiya, Ann. Carnegie Mus., vol.  
15, p. 177, pl. 28, figs. 1-2, 1924.  
(Ryukyu; Kumamoto; Uwajima;  
Formosa) — Fowler, Mem. Bishop  
Mus., vol. 11, no. 6, p. 405, 1934 (ref-  
erence).

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Caranx (Caranx) sansoni Weber and  
Beaufort, Fishes Indo Austral.  
Archip., vol. 6, p. 254, 1931 (Amboina).



277

Amia percaiformis Gray, Cat. Fishes  
Gronow, vol. 2, 1854, p. 173. East Indies.  
(On Gronow, Zoophylae., 1763, no. 273,  
pl. 9, fig. 2.)

Amia sealei Fowler, Proc. Acad. Nat.  
Sci. Phila., 1918, p. 20, fig. 9. Philippines.  
— Fowler and Bean, Proc. U. S. Nat.  
Mus., vol. 62, 1922, p. 74 (Cebu). — Fowler,  
Proc. Acad. Nat. Sci. Phila., 1927, p. 274  
(San Fernando, Santa Maria and types).

- Parany farra Cuvier, Hist. Nat. Poiss., vol. 9, p. 109, 1833 (on Jarra dandree parrah Russell, Fishes of Coromandel, vol. 2, p. 35, pl. 147, 1803, type locality, Vijayapatam).
- Bleeker, Verh. Batavia. Genoot. (Nat. Ichth. Bengal), vol. 25, p. 44, 1853 (reference).
- Jordan, Madras Journ. Lit. Sci., p. 137, 1851.
- Günther, Cat. Fish. Brit. Mus., vol. 2, p. 446, 1860 (Amboina).
- Elera, Cat. Fauna Filipinas, vol. 1, 1895, p. 510 (Luzon, Cavite, Santa Cruz, Masugbu, Batangas).
- Day, Fishes of India, pt. 2, p. 2115, 1876; Fauna Brit. India, Fishes, vol. 2, p. 152, 1889.
- Jordan and Richardson, Mem. Carnegie Mus., vol. 4, no. 4, p. 178, Aug. 28, 1909 (in Recent Records).
- Nyder, Proc. U. S. Nat. Mus., vol. 42, 1912, p. 496 (Okinawa).
- Gogorza, Anal. Soc. Españ. Hist. Nat. Madrid, vol. 17, p. 490, 1888 (Masugbu, Batangas).
- Wakaya, Ann. Carnegie Mus., vol. 15, p. 196, pl. 29, fig. 2, 1924 (Bonin Islands).
- Ashima, Philippine Journ. Sci., vol. 26, no. 3, p. 372, March 3, 1925 (compiled).



8832. Maculabo Island. June 14, 1909. Length 300 mm. Side crossed by 2 longitudinal yellow bands, one in region of lateral line and one backward from upper base of pectoral. Fin rays somewhat vermilion, taking form of bars on caudal base and more or less mottled on dorsal. This specimen from deeper water than usual.

Lethrinus mahsena (Forsk.)

Sciaena mahsena FORSKÅL, Descript. Animal., 1775, pp. xii, 52. (Arabia).  
BONNATERRE, Tabl. Ichth., 1788, p. 124 (Red Sea). — GÜNTHER, Syst. Nat. Linn., vol. 1, 1789, p. 1304 (Arabia).

Sparus mahsena LACEPÈDE, Hist. Nat. Poiss., vol. 4, 1802, pp. 34, 111 (Arabia).

Lethrinus mahsena VALENCIENNES, Hist. Nat. Poiss., vol. 6, 1830, p. 313 (copied). — RÜPPELL, Neue Wirbelth., Fische, 1835, p. 119, pl. 29, fig. 4 (Red Sea). — GÜNTHER, Cat. Fish. Brit. Mus., vol. 1, 1859, p. 463 (Red Sea). — SCHMELTZ, Cat. Mus. Godeffroy, vol. 4, 1869, p. 14 (Kandavu). — KLUNZINGER, Verh. zool. bot. Ges. Wien, vol. 20, 1870, p. 753 (types of Lethrinus bungus and Lethrinus abbreviatus). — GÜNTHER, Journ. Mus. Godeffroy, vols. 2-3, pts. 5-6, 1874, p. 65, pl. 48 (Seychelles, Philippines, Pelew, Fiji, Hervey, Paumotu Islands). — PETERS, Monatsb. Akad. Wiss. Berlin, 1876, p. 438 (Mauritius). — BLEEKER, Atlas Ichth. Ind. Néerland., vol. 8, 1876-1877, p. 113 (on GÜNTHER). — KOSSMAN and RAUBER, Wiss. Ergebn. Reise Küstengeb. Roth. Meers, 1877, p. 11 (Red Sea). — KOSSMAN, Zool. Anz., vol. 2, 1879, p. 22 (Red Sea). — GÜNTHER, Philos. Trans. Roy. Soc., ~~LXXXIX~~ vol. 168, 1879, p. 471 (Rodriguez).

Selar farra Bleeker, Verh. Batavia.  
Genoot. (Maatsch.), vol. 24, p. 58,  
1852 (Siboga).

Carangus farra Jordan and  
Evermann, Proc. U. S. Nat. Mus.,  
vol. 25, p. 337, 1902 (Keelung, Formosa).  
Bleeker, Ned. Tijds. Dierk., vol. 2, p. 286,  
1865 (reference). —

Trichopterus farra Jordan and  
Starke, Ann. Carnegie Mus., vol. 11,  
p. 442, 1917 (Ceylon).



Follow - Incl Caps  
Loaded 8 Point

65898 U.S.N.M. Tuumotu Islands. Albatross collection. Length, 447 mm.

27632 A.N.S.P. Padang, Sumatra. A.C. Harrison and H.M. Miller. Length

300 mm. When fresh in arrack grayish brown above, whitish below. Narrow gray longitudinal lines along body, line to each row of scales. Four large ill-defined or diffuse gray-brown blotches along side. Inside gill opening orange red. Iris yellowish. Fins dilute olivaceous, slightly grayish dusky. Edges of caudal and anal pale. Pectoral pale olive, axil pale orange. Ventral pale olive gray, dusky terminally.

Lethrinus nematacanthus Bleeker

Lethrinus nematacanthus BLEEKER, Nat. Tijds. Nederland. Indië, vol. 6,

1854, p. 403, (Nagasaki); Verh. Batav. Genootsch. (Japan), vol. 26,

1857, p. 90, pl. 6, - GÜNTHER, Cat. Fish. Brit. Mus., vol. 1, 1859,

p. 456 (Lousiades). - BLEEKER, Nederland. Tijdschr. Dierk., vol. 4,

1873, p. 327 (Amboina and Kiushu). - ALLEYNE and MACLEAY, Proc. Linn.

Soc. New South Wales, vol. 1, 1876, p. 275 (Cape Grenville and Pipon

Islands). - BLEEKER, Atlas Ichth. Ind. Néerland., vol. 8, 1876-1877,

p. 114, pl. (59) 337, fig. 3 (Amboyna). - MEYER, Anal. Soc. Espan.

Hist. Nat. Madrid, vol. 14, 1885, p. 18 (North Celebes; Cebu). -

JORDAN and SNYDER, Annot. Zool. Japon., vol. 3, 1901, p. 80 (Nagasaki).

- EVERMANN and SEALE, Bull. Bur. Fisher., vol. 26, 1906 (1907), p. 86

(Bulan). - JORDAN and THOMPSON, Proc. U.S. Nat. Mus., vol. 41, 1912,

p. 559 (Wakanoura, Tokyo, Bulan, Moreton Bay). - WEBER, Siboga Exped.,

Fische, vol. 57, 1913, p. 288 (Makassar). - FOWLER, Copeia, No. 57,

June 18, 1918, p. 64 (Philippines). - IZUKA and MATSUURA, Cat. Zool.

Spec. Tokyo Mus., Vertebr., 1920, p. 149 (Ogasawarajima). -

Caranx ignobilis (not Forskål)

Kendall and Goldborough, mem.

Mus. Comp. Zool., vol. 26, p. 260, '911

(Inkuhiva). — Fowler, mem.

Bishop Mus., vol. 10, p. 148, 1928

(Inkuhiva material)



2 rows on cheek to preopercle ridge.  
Tubes in lateral line rather large,  
well marked and each with small  
crimped basal scale. <sup>Scales with</sup> 14 basal  
radiating striae; 43 to 110 apical denticles  
with 1 or 2 series of basal elements;  
circuli coarse.

D. VII - I, 9, I, fourth spine  $2\frac{1}{6}$  to  $2\frac{2}{5}$   
in total head length, second ray  $1\frac{2}{3}$  to  
 $1\frac{4}{5}$ ; A. II, 8, I, second spine 3 to  $3\frac{1}{4}$ ,  
second ray  $1\frac{7}{8}$  to 2; caudal  $1\frac{1}{5}$  to  $1\frac{1}{4}$ ,  
little emarginate behind; least depth of  
caudal peduncle  $2\frac{1}{5}$  to  $2\frac{7}{8}$ ; pectoral  
 $1\frac{2}{3}$  to  $1\frac{3}{4}$ ; ventral  $1\frac{3}{4}$  to  $1\frac{4}{5}$ .

Brown on back and upper surface,  
sides and below light brown to much  
paler with silvery white reflections.  
Dark brown band from snout tip to  
eye and back little above median axis

Depth  $2\frac{2}{3}$  to  $2\frac{3}{4}$ ; head  $3\frac{1}{3}$  to  $3\frac{2}{5}$ , width  $2\frac{1}{10}$  to  $2\frac{1}{8}$ . Snout 3 to  $3\frac{1}{5}$  in head from snout tip; eye  $4\frac{1}{4}$  to  $4\frac{1}{2}$ ,  $1\frac{1}{2}$  to  $1\frac{3}{5}$  in snout,  $1\frac{1}{4}$  in interorbital, broad adipose lids extend over posterior third of eye; maxillary reaches  $\frac{2}{5}$  in eye, expansion  $1\frac{1}{4}$  to  $1\frac{1}{3}$ , length  $2\frac{2}{5}$  to  $2\frac{1}{2}$  in head from snout tip; interorbital  $3\frac{4}{5}$  to  $3\frac{7}{8}$ , convexly elevated, with median occipital keel. Gill rakers  $8+17$ , lanceolate, gill filaments  $\frac{7}{8}$  of gill rakers, which  $1\frac{1}{2}$  in eye.

Scales 40 or  $41+35$  in lateral line, arch  $1\frac{2}{5}$  in straight section; 15 scales above arch, 27 or 28 below. Under surface of chest and breast naked,



with small patch of scales  
close before ventral bases.

D. I, VIII - I, 21, I or I, 22, I, third  
spine  $1\frac{7}{8}$  to  $2\frac{2}{5}$  in total head  
length, first branched ray  $1\frac{1}{8}$   
to  $1\frac{1}{4}$ ; A. II - I, 18, I or I, 19, I, first  
branched ray  $1\frac{2}{5}$  to  $1\frac{1}{2}$ ; least  
depth of caudal peduncle 7;  
ventral  $2\frac{1}{10}$  to  $2\frac{1}{3}$ , rays I, 5;  
pectoral rays II, 20, fin  $2\frac{2}{3}$  to  
 $2\frac{3}{4}$  in fin without caudal;  
caudal  $3\frac{1}{5}$  to  $3\frac{1}{2}$ , deeply forked.

Back brownish, sides and  
below white to silvery white.  
No dark spot on opercle. Iris  
silvery white. Dorsals and  
caudal, also anal and pectoral,  
more or less brownish, with  
pale borders.

Red Sea, India, Ceylon, East  
Indies, Philippines, Formosa,  
Riu Kiu, Japan, Micronesia,  
Polynesia.



U. S. N. M., No. 65773. Nukuhiva.  
Albatross Collection. Length  
340? to 358 mm. 2 examples.  
As Carany ignobilis.

11

- 6427, 6467. Tilig, Lubang. July 14, 1908. Length, 300 to 310 mm.
7654. Ulugan Bay, Oyster Inlet. December 28, 1908. Length, 276 mm.
- 6667, 20829. Varadero Bay, Mindoro. July 23, 1908. Length, 164 to 220 mm.
7145. West coast Palau Island. November 18, 1908. Length, 280 mm.
6087. Zamboanga market. May 29, 1908. Length 312 mm.
21327. Uki, Boero Island, Dutch East Indies. December 9, 1909. Length, 98 mm.
20837. Tomahu Island. December 11, 1909. Length, 97 mm.
- 13510, 19792. Gomomo Island, Pitt Passage. December 3, 1909. Length, 117 to 140 mm.
17694. Limbe Strait, Celebes. November 10, 1909. Length, 143 mm.
- A906. Limbe Strait, Celebes. November 11, 1909. Length, 430 mm. Few scattered black spots, little less than pupil, on sides of body.
- A1040. North of Malibagu Point, Celebes. November 21, 1909. Length, 283 mm.
9723. Kayoa Island. November 29, 1909. Length, 135 mm.
14414. Talisse Island. November 9, 1909. Length, 95 mm.
- A1399. Tampotana Island. December 21, 1909. Length, 240 mm.
- A1605. Nafa, Riu Kiu Islands. February 7, 1910. Length, 358 mm.
- No. 56202 U.S.N.M. Bureau of Fisheries (No. 4169). Length, 257 mm.
- No. 75896 U.S.N.M. Borneo. H.C. Raven. Length, 153 mm.
- 75897 U.S.N.M. Borneo. H.C. Raven. Length, 246 mm.
- No. 52800 A.N.S.P. Calapan, Mindoro. Rev. Joseph Clemens. 1923. Length, 142 mm.

The following represent the dark phase of this species. All are nearly uniform chocolate brown, except some pale spots on each side of the abdomen in alcoholic specimens mostly posteriorly:

8031. Capulaan Bay, Luzon. February 24, 1908. Length, 254 mm.
8723. Caracaran, Batan Island. June 28, 1908. Length, 318 mm.
6036. Little Santa Cruz Island. May 28, 1908. Length, 305 mm.



Caranx ignobilis (Forskål)

Neomaber ignobilis Forskål, Descript.  
Animal., pp. 12, 55, 1775 (type  
locality, Algeida; Lohaja, Red Sea.  
— Bonnaterre, Tabl. Ichth., p. 142,  
1788 (copied). — Gmelin, Syst.  
Nat. Linn., pt. 1, p. 1333, 1789  
(copied). — Walbaum, Artedi Pisc.,  
vol. 3, p. 218, 1792 (copied).

22342. Shore above Iloilo River. June 2,  
1908. Length 81 mm.

22889. Suber Bay, Hongapo. January  
7, 1908. Length 84 mm.

9199, 9200, 9201. Tiliy, Lubang Island.  
July 14, 1908. Length 176 to 210 mm.

17200 to 17203. Verde de Sur Island,  
Palawan reef and sand flat. April 6, 1909.  
Length 84 to 162 mm. 1 example.

18813, 18814. Yana River, Albay Gulf,  
Luzon. June 7, 1909. Length 192 to 230 mm.

19332, 19333, 20230, 20394. Sandakan,  
Borneo. March 2, 1908. Length 88 to 165 mm.

5255. Sandakan. March 21, 1908.  
Length 154 mm.

12389. Hong Kong market. August 13, 1908.  
Length 183 mm.

12634 U.S.N.M. Seychelles. British  
Museum. Length 105 to 108 mm.  
2 examples.



Caranx ignobilis Klunzinger,  
Sitzs. Ber. Akad. Wiss. Wien,  
math.-naturwiss. Kl., vol. 80, pt. 1,  
p. 377, 1879 (1880) (Port Darwin;  
Cleveland Bay).

— Macleay, Proc. Linn. Soc. New  
South Wales, vol. 9, pt. 1, p. 24, 1884  
(copied). — Klunzinger, Fische  
Roth. Meer., vol. 1, p. 100, 1884.

Spinous dorsal pink, with dusky.  
Soft dorsal brighter, brown bar  
across base slightly oblique. Anal  
vermilion, with brown basal bar  
as on soft dorsal. Caudal reddish  
dusky. Paired fins pink, ventrals  
brighter.



<sup>H</sup>  
Caranx ignobilis Steindachner,  
 Denks. Akad. Wiss. Wien, Math.-  
 naturw. Kl., vol. 70, p. 495, 1901  
 (Honolulu; Laysan). — Jordan and  
Seale, Bull. Bur. Fisher., vol. 25,  
 p. 231, 1905 (1906) (Samoa). —  
Jordan and Snyder, Proc. U. S. Nat.  
 Mus., vol. 29, p. 354, 1906 (Tahiti).  
 — Jordan and Seale, Bull. Bur.  
 Fisher., vol. 26, p. 14, 1906 (1907)  
 (Cavite). — Jordan and Richardson,  
 Bull. Bur. Fisher., vol. 27, p. 250,  
 1907 (1908) (Iloilo; Lubang; Mem.  
 Carnegie Mus., vol. 4, no. 1, p. 178, 1908 (Takao, Formosa). —  
Kendall and Goldsborough, Mem.  
 Mus. Comp. Zool., vol. 26, p. 269,  
 1911 (Mukuhia, Marquesas Islands).  
 — Snyder, Proc. U. S. Nat. Mus.,  
 vol. 42, 1912, p. 411 (Kagoshima), p.  
 496 (Okinawa). — Fowler, Copeia,  
 no. 58, June 18, 1918, p. 63 (Philippines).

20993. Parang Parang, Mindanao.

May 23, 1908. Length 171 mm.

14222. Port San Pio Quinto, Camiguin Island. November 11, 1908. Length 105 mm.

19509, 19510. Ragay River, Ragay Gulf, Luzon. March 10, 1909. Length 25 to 96 mm.

8 examples. Smallest with 10 or 11 dark brown spots axial along middle of side, of which last 2 on caudal base. As seen above 8 dark brown median blotches, first predorsal, second and third at spinous dorsal base, fourth before soft dorsal origin, fifth to seventh along base of soft dorsal and eighth at caudal peduncle above.

8547. San Fernando, Union Province, Luzon. March 17, 1908. Length 154 mm.

12319. San Vicente Harbor, Luzon. November 13, 1908. Length 21 to 184 mm. 13 examples.



— Weber, Siboga Exped., vol. 5 <sup>Fische,</sup> 7<sub>1</sub>, p. 398,  
1913 (Kwandang, North Celebes).

— McCulloch, Biol. Res. Endeavour,  
vol. 3, pt. 3, p. 126, April 21, 1915  
(Port Hedland; Cape York).

272

1 example. Mompog Island, vicinity  
Marinduque March 3, 1909. Length  
27 mm.

14 examples. Catangian Bay, Masbate  
Island. April 18, 1908. Length 23 to  
30 mm.

8408 to 8410. Hokuho, Soo Wan, Formosa.  
January 29, 1910. Length 109 to 120 mm.  
[2184] Pearl color, with brown  
stripes. First stripe median, extends  
from between eyes, dividing around  
~~second~~ dorsal; second from snout,  
above orbit to caudal base; median  
from snout tip interrupted by eye  
and ending in blotch size of pupil  
at caudal base mainly above lateral  
line; fourth across maxillary, under  
eye through pectoral base and along  
lower edge of caudal peduncle; fifth  
short obscure stripe below pectoral.



— Jordan and Jordan, Mem. Carnegie Mus., vol. 10, No. 1, p. 39, Dec. 1922 (Honolulu).

— Wakaya, Ann. Carnegie Mus., vol. 15, p. 193, pl. 27, fig. 3, 1924 (Nagasaki); Uwajima; Ryukyu; Formosa.

— E. R. Jordan, Proc. U. S. Nat. Mus., vol. 66, art. 33, p. 16, 1925 (Honolulu).

— Barnard, Ann. South African Mus., vol. 11, pt. 2, p. 545, Oct. 1927 (compiled).

size of pupil. Fourth dark band extends from below eye to pectoral and then back along lower side of caudal peduncle to caudal base.

Head all more or less with soiled appearance. Iris dark gray.

Fins all brownish, soft dorsal and anal each with subbasal dark longitudinal line.

Originally described from 4 Japanese specimens and apparently not since reported. Our materials definitely place it in the faunas of both Formosa and the Philippines.



— Jordan and Jordan, mem.  
Carnegie Mus., vol. 10, no. 1, p. 39,  
December 1922 (note — Fowler,  
Bull. Bishop Mus., no. 22, p. 8, 1925  
Guam); Proc. Acad. Nat. Sci.  
Philadelphia, vol. 77, 1925, p. 215  
(Delagoa Bay); Journ. Bombay  
Nat. Hist. Soc., vol. 32, no. 4,  
May 31, 1928, p. 707 (Ceylon); mem.  
Bishop Mus., vol. 10, p. 148, 1928  
(Hawaiian Islands; Pacific; type  
of Carangus hippoides; Hukuhiva;  
Honolulu; Shortland); ~~vol.~~ vol. 11, no.  
5, p. 326, 1931 (reference); vol. 11, no.  
6, p. 404, 1934 (Honolulu); Proc.  
Acad. Nat. Sci. Philadelphia, vol.  
86, 1934, p. 446 (Durban, Natal).

~~1577~~

dusky. Caudal greenish, with dusky edge. Anal and ventrals bright yellow. Pectorals plain. A common market fish.

6224. Mantaguin Bay, Palawan. April 2, 1909. Length 160 mm.

~~22006. Mariveles Bay, Luzon. January 27, 1909. Length 121 mm.~~

21608. Matnog Bay, Luzon. May 31, 1909. Length 107 mm.

20351. Iate River, Lagonoy Gulf, Luzon. June 17, 1909. Length 68 mm.

20659. North end Endeavor Strait, north west coast Palawan. December 22, 1908. Length 110 mm.

19575. Paluan Bay, Mindoro. December 11, 1908. Length 114 mm.

1 example. Panabutan Bay, Mindanao. February 6, 1908. Length 48 mm.



Caranx (Caranx) ignobilis Weber  
and Beaufort, Fishes Indo-Austral.  
Archip., vol. 6, p. 255, 1931 (Flores;  
Kwandang).

277

Scales with 9 to 16 basal radiating striae; 12 to 145 apical denticles, with many as 8 transverse series of basal elements; ~~many~~ circuli fine.

D. VII - I, 9, I, third spine 2 to  $2\frac{1}{10}$  in total head length, second ray  $1\frac{2}{5}$  to  $1\frac{1}{2}$ ; A. II, 8, I, second spine  $2\frac{3}{4}$  to 3, first ray  $1\frac{3}{4}$  to 2; caudal  $1\frac{1}{5}$  to  $1\frac{1}{4}$ , emarginate; least depth of caudal peduncle  $2\frac{1}{2}$  to  $2\frac{2}{3}$ ; pectoral  $1\frac{1}{3}$  to  $1\frac{2}{5}$ ; ventral  $1\frac{2}{3}$  to  $1\frac{4}{5}$ .

Dull brown generally, little paler underneath. Dark brown line along bases of dorsals. Second dark brown band from over eye back along upper side of caudal peduncle to caudal base. Medium dark band from eye back to caudal base where forming black spot.



Carangus ignobilis Jordan and  
Evermann, Bull. Bur. Fisher., vol.  
23, pt. 1, p. 188, 1903 (1905)  
(Honolulu).

Selar ignobilis Oshima, Philippine  
Journ. Sci., vol. 26, no. 3, p. 383, March  
1925 (compiled).

C<sup>me</sup> 130

1736

Genus Sillaginodes Gill

Sillaginodes Gill, Proc. Acad. Nat. Sci. Philadelphia, 1861, p. 504. Type Sillago punctatus Cuvier, orthotypic.

Isoisillago hacley, Proc. Linn. Soc. New South Wales, vol. 3, 1879, p. 34. Type Isoisillago maculata hacley, monotypic.

Body elongated, scarcely compressed, back and abdomen more or less convex or rounded. Head elongate, conic, compressed, gradually narrowed forward. Eyes moderate, nearly median. Mouth small, jaws even or lower shorter. Scales very small, 170 in longitudinal row. First dorsal slopes down backward, margin straight or convex, spines 12; second dorsal longer, with spine and 26 rays. Anal with slender spine and 22 rays. Caudal emarginate. Ventral with slender spine.



Caranx sanson (not Forsk.) Ruppell,  
Atlas Reise nördl. Afrika, Fische,  
p. 101, 1828 (Agadda); Neue Wirbelth.  
Fische, p. 48, 1835. — Günther,  
Cat. Fish. Brit. Mus., vol. 2, p. 447,  
1860 (Mauritius; India).

— Klunzinger, Verh. zool. bot. Gesell.  
Wien, vol. 21, p. 466, 1871 (Red Sea).

— Bleeker, Rech. Faune Madagascar,  
pt. 4, p. 99, 1874 (reference) —

— Day, Fishes of India, pt. 2, p. 216,  
pl. 50, fig. 5, 1876 (Madras); Fauna  
British India, Fishes, vol. 2, p. 155,  
1889.

Carangus sanson Bleeker, Rech. Faune  
Madagascar, pt. 4, p. 99, 1874  
(Madagascar).

Carangus sanson Bleeker, Verh. Koninkl.  
Wet. Amsterdam, vol. 18, (Maurice), p. 18,  
1877 (1879) (reference) (error).

27

Depth  $2\frac{2}{3}$  to 3; head  $2\frac{1}{2}$  to  $2\frac{2}{3}$ , width  $1\frac{7}{8}$  to 2. Snout 4 to  $4\frac{1}{2}$  <sup>from snout tip</sup> in head; eye  $2\frac{4}{5}$  to 2, greater than snout or interorbital; maxillary reaches  $\frac{2}{3}$  in eye, expansion  $2\frac{1}{6}$  to  $2\frac{1}{2}$ , length 2 to  $2\frac{1}{8}$  in head; teeth villiform, in bands in jaws, on vomer and palatines; interorbital 4 to  $4\frac{2}{3}$ , very slightly convex; preopercle ridge entire, edge finely serrate. Gill rakers 5 + 14, lanceolate, little longer than gill filaments or  $3\frac{1}{8}$  in eye.

Scales 24 in lateral line to caudal base and 4 more on latter, 2 above, 6 below, 3 or 4 predorsal, 3 rows on cheeks; head naked, except cheeks and opercles. Tubes in lateral line large, each well exposed and with rather large crimped basal scale,



Carangus hippos (not Linnaeus)

Bleeker, Verslag. Kon. Akad. Wet.  
Amsterdam, ser. 2, vol. 2, p. 300, 1868  
(Waigiu).

Caranx hippos Peters, Monatsb. Akad.  
Wiss. Berlin, 1876 (1877), p. 836

(New Britain). — Waite, Rec. Austral.

Mus., vol. 5, p. 3, 1903 (Kauai,  
Marshall; Banopa, Gilberts).

— Beaufort, Bijdr. Dierk.

Amsterdam, vol. 19, p. 133, 1913

(Waigiu).

Crust 120  
C. ab. n.  
om. d.

173

Sillaginopodus, new subgenus <sup>14</sup>  
Types  $\frac{1}{m}$  Sillago chondropus Bleeker

Diagnosis. - Ventral spine expanded  
as thick cartilaginous pad, joined  
with first ventral ray.

<sup>14</sup>  
✓ Sillago; πούς, foot, with reference  
to the modified ventral fins.



Carangus hippoides Jenkins,  
Bull. U. S. Fish Comm., vol. 22, p.  
443, fig. 15, 1902 (1903) (type  
locality, Honolulu).

Caranx farra (not Valenciennes  
Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 79, 1927, p. 270  
(Philippines).

The imperfectly described Villago  
terrae-reginae Castlenau is apparently  
synonymous: 1750a

Depth little less than 4; head  $3\frac{1}{3}$ . Eye  
 $4\frac{1}{2}$  in head, 2 in snout; interorbital 2 in  
snout; preopercle entire; opercle ends in  
small spine. Scales 64 in lateral line.  
D. X, I, 18, third spine longest; A. II, 15;  
caudal very slightly concave. Silvery,  
upper parts greenish. On body some  
very indistinct transverse dark bands,  
disappearing in dried specimen. Length  
305 mm.

28674 U. S. N. M. No locality.

Australian Museum. Two, 279 to 281 mm.

59886 U. S. N. M. New South Wales.

A. G. Stead. Four, 245 to 366 mm.



1593

Depth  $2\frac{1}{5}$  to  $2\frac{2}{3}$ ; head  $2\frac{9}{10}$  to  $3\frac{2}{5}$ ,  
width  $2\frac{1}{6}$  to  $2\frac{1}{3}$ . Snout  $3\frac{1}{8}$  to  $3\frac{1}{2}$   
in head from snout tip; eye  $3\frac{1}{10}$   
to  $3\frac{7}{8}$ ,  $1$  to  $1\frac{1}{4}$  in snout,  $1$  to  $1\frac{1}{4}$  in  
interorbital, with rather narrow  
posterior adipose lid; maxillary  
reaches  $\frac{2}{5}$  to  $\frac{1}{2}$  in eye, expansion  
 $1\frac{1}{2}$  to  $1\frac{3}{5}$  in eye, length  $2\frac{1}{10}$  to  
 $2\frac{1}{4}$  in head from snout tip;  
interorbital  $3\frac{1}{4}$  to  $4$ , convex.  
Gill rakers 6 or 7 + 15 or 16,  
lanceolate, equal gill filaments  
or  $1\frac{1}{2}$  in eye.

Scales 43 to 57 + 28 to 37 in  
lateral line, arch  $1\frac{1}{6}$  to  $1\frac{2}{5}$  in  
straight section; 14 to 20 scales  
above arch to soft dorsal origin,  
22 to 31 below. Breast naked  
below to ventral, except small  
patch of small scales postero-

medially. Scales with 20 to 30 complete circles.

D. I, VIII - I, 19, I or I, 20, I,  
third spine  $2\frac{2}{5}$  to  $2\frac{2}{3}$  in total head length, first branched ray  $1\frac{1}{4}$  to  $2\frac{1}{10}$ ; A. II - I, 16, I or I, 17, I, second spine  $1\frac{1}{2}$  in eye, first branched ray  $1\frac{1}{2}$  to  $2\frac{1}{10}$  in total head length; caudal 1 to  $1\frac{1}{3}$ , strongly forked; least depth of caudal peduncle 7; pectoral 1 to  $1\frac{1}{10}$ , reaches third or fourth scute of lateral line, rays I, 19 or I, 20; ventral 2 to  $2\frac{3}{5}$  in total head length, rays I, 5.

Back brownish, below silvery white. Iris gray. Spinous dorsal dusted with dusky. Soft dorsal and caudal with pale brownish, other fins



whitish. Faint gray spot on  
opercle not larger than pupil.

Red Sea, Natal, Mauritius,  
Madagascar, India, Ceylon,  
East Indies, Philippines, Formosa,  
Kin Kin, Japan, North Australia,  
Queensland, Melanesia, Micronesia,  
Polynesia, Hawaii.

1596  
One example. Sibuyan, Leyte.  
July 26, 1909. Length 195 mm.  
Scutes 30. Arch of lateral line  
 $1\frac{1}{8}$  in straight section. D. I, 19.



uniformly pale, pectoral with gray  
or dusky slate blotch extending  
over its base.

A valued food fish all along the  
eastern and southern Australian  
coast line. Distinguished from the  
related Sillago maculata by its  
deeper caudal peduncle, which nearly  
equals the postocular region. It  
agrees, however, in the dark basal  
pectoral blotch.

1597

21067. Albuayog, Leyte. July 26,  
1909. Length 163 to 194 mm. A.  
II - I, 16, I. A. II - I, 16, I.

Eleven examples. Batangas, Luzon.  
June 7, 1908. Length 41 to 61 mm.  
A. II - I, 16, I or 17, I.

6583. Bolinao Bay. May 10, 1907.  
Length 50 mm. A. II - I, 17, I.

5993 [743]. Cavite market.  
December 1, 1908. Length 123 mm.  
A. II - I, 17, I.

20408, 20409. Cotabato, Mindanao.  
May 20, 1908. Length 78 to 88 mm.  
A. II - I, 16, I.

19399. Iloilo market, Iloilo.  
March 28, 1908. Length 82 mm. A.  
II - I, 16, I.

22917. D. 5641. Kalono Point  
(W.), N. 61° N. 38° W., 6.5 miles (lat.  
4° 29' ~~40~~ 24" S., long. 122° 52' 30" E.),  
Buton Strait. In 39 fathoms.  
December 14, 1909. Length 67 mm.  
A. II - I, 17.



1585

broadly convex; suborbital depth  $1\frac{1}{2}$  to 2 in eye; flexible preopercle edge with numerous slender weak spinules, usually hidden by scales. Gill rakers  $6 + 14$  or 15, lanceolate, little greater than gill filaments or  $\frac{1}{2}$  of eye; 1 to 3 above and 3 to 5 below of gill rakers usually rudimentary.

Scales 49 or 50 in lateral line to caudal base and 15 or more out over caudal fin; 6 above, 9 below,  $1\frac{1}{2}$  predorsal forward to occiput and 26 more forward to front end of snout; 11 rows of large scales across cheeks; caudal and anal scaly basally, dorsals naked. Scales with 21 or 22 basal radiating striae; 23 to 48 weak short apical denticles,

1598

Two examples. Manila Bay, Luzon.  
December 6, 1907. Length 68 to 80 mm.  
A. II - I, 16.

20416. Malampaya River, Palawan.  
December 26, 1908. Length 133 mm.  
A. II - I, 17, I.

21154. Mansalay, Mindoro.  
June 4, 1908. Length 52 mm.  
A. II - I, 16, I.

8484. Mantaguin Bay, Palawan.  
April 2, 1909. Length 300 mm.  
A. II - I, 17.

7625. Mouth of Malampaya  
River and vicinity. December 26, 1908.  
Length 258 mm. A. II - I, 17.

Two examples. Iato River tidal.  
June 18, 1909. Length 52 to 74 mm.  
A. II - I, 16 or 17.

20330. Naujan River, Mindoro.  
June 5, 1908. Length 65 mm. A.  
II - I, 16, I.



Sciaena iharal Jordan and Metz,  
Mem. Carnegie Mus., vol. 6, no. 1, 1913, p.  
37, pl. 7, fig. 2. Fusan, Korea.

Depth  $3\frac{1}{2}$  to  $3\frac{4}{5}$ ; head  $3\frac{1}{8}$  to  $3\frac{1}{4}$ , with  
 $1\frac{7}{8}$  to  $2\frac{1}{5}$ . Snout  $3\frac{1}{5}$  to  $3\frac{1}{2}$  in head from  
snout tip; eye  $4\frac{1}{2}$  to 5,  $1\frac{1}{3}$  to  $1\frac{1}{2}$  in snout,  
 $1\frac{1}{4}$  to  $1\frac{2}{5}$  in interorbital; maxillary reaches  
 $\frac{1}{2}$  in eye, expansion  $1\frac{2}{5}$  to  $1\frac{1}{2}$  in eye, length  
2 to  $2\frac{1}{5}$  in head from snout tip; mouth  
terminal, mandible slightly protruding;  
2 pairs of pores at chin, hind pair larger;  
rather narrow bands of villiform teeth  
in jaws, outer upper rows as canines  
with 4 at least partly exposed with  
closed jaws and inner row of mandible  
distinctly enlarged; interorbital  $3\frac{1}{4}$  to 4,

Two examples. Port Janelo, <sup>1599</sup>  
Luzon. July 13, 1908. Length 50 mm.  
A. II - I, 17.

One example. Port San Pio Quinto,  
Carriguin Island. March 11, 1908.  
Length 68 mm. A. II - I, 17.

Seventeen examples. Tilig, Lubang.  
July 14, 1908. Length 53 to 84 mm.

<sup>7546</sup>. Ayana River, Legaspi.  
June 7, 1909. Length 84 mm.  
A. II - I, 16, I.

Four examples. Kema, Celebes, Dutch  
East Indies. November 13, 1909.

Length 69 to 77 mm. A. II - I, 16 or 17.

12862, 14135, 21263, 21485. Tifer  
Bay, Borneo. December 10, 1909.

Length 68 to 134 mm. A. II - I, 16 or 17.



1553

vol. 6, no. 4, 1914, p. 258 (Matsushima Bay; Asaka).

Nibe schlegeli Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, no. 2, June 27, 1925, p. 243 (Shizuoka, Asaka, Tokyo, Kobe, Mikawa Bay, Misaki, Fukuoka, Fuku, Miyazu).

Corvina yeddoensis (Döderlein) Steindachner and Döderlein, Denkschr. Akad. Wiss. Wien, math.-naturw. Klasse, vol. 48, pt. 1, 1884, p. 35. Jeddo. (name in text.)

Sciæna nibe Jordan and Thompson, Proc. U. S. Nat. Mus., vol. 39, 1911, p. 258, fig. 4. Wakanoura.

Nibe nibe Jordan and Hubbs, Mem. Carnegie Mus., vol. 10, no. 2, June 27, 1925, p. 243 (Osaka market; Mikawa Bay).

U. S. N. M., No. 58012. Zamboanga.  
 Dr. E. A. Mearns. As Caranx carangus.  
 Scutes 25 to 30. Snout tip level with  
 lower eye edge. Length 102 to 125 mm.  
 Four examples.

U. S. N. M., No. 71972. Haha, Okinawa.  
 Albatross Collection 1906. Length 84 to  
 124 mm. As Caranx farrus? Scutes 30.  
 Four examples.

U. S. N. M., No. 89041. Tahiti. J. M.  
 Clements. Length 78 to 184 mm. Four  
 examples. Scutes 28. Snout tip level  
 with lower eye edge.

U. S. N. M., No. 72188. Lubang.  
 R. C. MacGregor. Length 90 mm.



~~7-14~~

Sydney, 1898, p. 133. — Waite, Records  
Australian Mus., vol. 4, 1901, p. 47 (Lord  
Howe Island); Mem. New South Wales  
Natural. Club, no. 2, 1904, p. 31. — Stead,  
Fishes of Australia, 1906, p. 109, fig. 40  
(New South Wales, Queensland, Victoria,  
Tasmania); Edible Fish. New South Wales,  
1908, p. 63, pl. 33. — McCulloch, Zool. Results  
Endeavour, vol. 1, pt. 1, sec. 22, 1911, p. 62  
(east coast of Australia); Fishes of New  
South Wales, ed. 2, 1927, p. 50. — Fowler,  
Mem. Bishop Mus., vol. 10, 1928, p. 235  
(on Günther).

U. S. N. M., No. 55231. Hawaiian Islands. Bureau of Fisheries (751). Length 140 mm.

U. S. N. M., No. 55557. Hawaiian Islands. Bureau of Fisheries. Length 118 to 132 mm. Two examples.

U. S. N. M., No. 56174. Mindanao. Bureau of Fisheries (4271). Length 90? mm. As Caranx carangus. Scutes 24. Upper lip level with lower eye edge.

U. S. N. M., No. 56241. Zamboanga. ~~Dr. E. A. Mearns~~. Bureau of Fisheries (4272). Length 65 mm. As Caranx carangus. Scutes 27. Snout tip level with lower eye edge.

U. S. N. M., No. 57911. Zamboanga. Dr. E. A. Mearns. Length 73 to 90 mm. Two examples. As Caranx carangus. Scutes 24 to 28. Snout tip level with lower eye edge.



Sillago diadoc Thiollière, Fauna  
Woodlark, 1857, p. 151. Woodlark Island.

Sillago insularis Castelnau, Proc. Zool.  
Acclimatist. Soc. Victoria, vol. 2, 1873,  
p. 113. Noumea, New Caledonia.

Sillago terrae-reginae Castelnau, Proc. Linn.  
Soc. New South Wales, vol. 2, 1878, p. 232.  
Brisbane, Moreton Bay.

Sillago bassensis (not Cuvier) Castelnau,  
Proc. Linn. Soc. New South Wales, vol. 3,  
1879, p. 381 (Cape York). — Macleay, Proc.  
Linn. Soc. New South Wales, vol. 5, 1881, p. 567  
(compiled). — Kent, Great Barrier Reef,  
1893, p. 291 (Queensland). — Tosh, Proc.  
Royal Soc. Queensland, vol. 17, 1903, p. 175,  
pls. 8-14.

A. n. S. P., one example. Delagoa Bay. 1922. H. W. Bell Marley. Length 173 mm.

A. n. S. P., one example. Philippines. 1923. Rev. J. Clemens. Length 80 mm.  
As Caranx jarra.

A. n. S. P., one example. Ceylon. Dr. F. Hallberg. 1924. Length 94 mm.



369 (Port Dennison; Cleveland Bay). —  
— Schmeltz, Cat. Mus. Godeffroy, no. 7,  
1879, p. 44 (Queensland). — Günther,  
Rep. Voy. Challenger, vol. 1, 1880, p. 42  
(Somerset, Cape York). — Macleay, Proc. Linn.  
Soc. New South Wales, vol. 5, pt. 4, 1881, p. 567  
(North Australia, Torres Straits, Cape York).  
— Woods, Fishes New South Wales, 1882, p. 65,  
pl. 24. — Pöhl, Cat. Mus. Godeffroy, no. 9,  
1884, p. 32 ("East Indies"). — Ogilby, Cat. Fish.  
New South Wales, 1886, p. 31. — McCoy,  
Prodromus Zool. Victoria, 1889, pl. 182. —  
Kent, Great Barrier Reef, 1893, pp. 292, 370,  
pl. 45, fig. 2. — Ogilby, Edible Fish. New South  
Wales, 1893, p. 102, pl. 27; Handbook of

Caranx cordylaoides (Meuschen)

Scomber cordylaoides Meuschen,  
Index Zoophyl. Gronov., pt. 3, 1781  
(on Gronow, Zoophyl., pt. 1, p. 94,  
no. 307, 1763, type locality, America).

Caranx (Cesa) cordylaoides Whitley,  
Rec. Austral. Mus., vol. 15, no. 5, p.  
300, April 6, 1927 (reference).



~~1009~~  
75887 U.S.N.M. Borneo. H.C. Raven.  
Length 310 mm. Lower gill rakers 20.

84080 U.S.N.M. Hawaiian Islands.  
Length 151 mm. In poor preservation.

84046 U.S.N.M. Tahiti. J.M. Clements.  
Length 76 to 80 mm. 3 examples.

27150 A.N.S.P. Honolulu. Stanford  
University. In exchange. Length 207 mm.  
Eye 4 in head. Gill rakers 7+21.

<sup>A.N.S.P.</sup>  
31005 and 31006, Apia, Samoa.  
Bureau of Fisheries.

31714 A.N.S.P. Honolulu. Bureau of  
Fisheries (03873). Length ~~2~~ 70 mm. Eye 5  
in head. ~~Lower~~ Gill rakers 9+18.

Scomber cordyla (part) Linnaeus,  
Syst. Nat., ed. 10, pt. 1, p. 298, 1758  
 (part); ed. 12, pt. 1, p. 493, 1766  
 (part). — Gmelin, Syst. Nat.  
Lin., pt. 1, p. 1332, 1789 (part). —  
Schneider, Syst. Ichth. Bloch,  
 p. 23, 1801 (part).

Scomber cordila Bonnaterre,  
Tabl. Ichth., p. 139, pl. 58, fig. 229,  
 1788 (part).

Trachurus cordyla Gray, Cat. Fish.  
Granow, p. 124, 1854 (part).



56999 U.S.N.M. *Apia*. Bureau  
of Fisheries. Length 131 to 135 mm.  
3 examples.

58539 U.S.N.M. *Hilo*. Bureau of  
Fisheries (No. 7627). Length 91 to 119 mm.  
22 examples.

65582 U.S.N.M. *Hawaiian Islands*.  
Bureau of Fisheries (No. 3292). Length  
167 mm.

65961 U.S.N.M. *Hawaiian Islands*.  
Bureau of Fisheries (A 53). Length 198 mm.

65962 U.S.N.M. *Makemo, Tuamotus*.  
Albatross Collection 1899. Length 95 to 200  
mm. 2 examples.

65963 U.S.N.M. *Funafuti*. Albatross  
Collection 1899. Length 97 to 106 mm.  
4 examples, in poor preservation.

65964 U.S.N.M. *Rangiroa, Tuamotus*.  
Albatross Collection 1899. Length 133 mm.

Scomber (glaucus) adscensionis  
Osbeck, Iter. Chin., vol. 2, p. 94,  
1771 (type locality, Ascension  
Island, Atlantic). (Inadmissible.)



~~Paranx quara~~ ~~Bonnaterre~~

Scomber quara Bonnaterre,  
Encyclop. Method., p. 139, pl. 58,  
1788 (type locality, America).

— Lacépède, Hist. Nat. Poiss., vol. 2,  
pp. 598, 604, 1800.

1509

India, China, Queensland. Also  
reported from the Philippines by  
Thera. According to Day it reaches  
945 mm.



Caranx quara

— Jordan and Evermann, Bull. U. S.  
~~Biol. Service~~ Nat. Mus., no. 47, pt. 1,  
p. 926, 1896 (copied Steindachner).

— Kendall and Radcliffe, Mem.  
Mus. Comp. Zool., vol. 35, p. 99, 1912  
(Easter Island).

— Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 81, p. 605, 1929  
(Hong Kong); vol. 87, p. 140, 1935 (Bangkok).

below; scales cycloid on head, elsewhere ctenoid; fine scales cover bases of soft dorsal and anal and whole of caudal with age.

D. IX or X, I, 24 or 25, third spine  $1\frac{4}{5}$  in head, first ray  $2\frac{2}{5}$ ; A. II, 7, second spine  $2\frac{1}{5}$ ; caudal  $1\frac{2}{3}$ , rounded in young, cuneate with age; least depth of caudal peduncle  $3\frac{3}{4}$ ; pectoral  $1\frac{4}{5}$ ; ventral  $1\frac{2}{5}$ .

Silvery, with light streak along each row of scales. Young with dark bluish mark on opercles, less distinct with age. Young with black interspinous dorsal membranes, but only as black outer edge with age. Second dorsal stained gray at upper third. (Day.)



Scomber dentex Schneider, Syst.  
Ichth. Bloch, p. 30, 1801 (type  
locality, Brazil).

Caranx luna Geoffroy St. Hilaire,  
Descript. Egypt. Poiss., pl. 23, 1809  
(type locality, Egypt).

Caranx mertensii Cuvier, Hist.  
Nat. Poiss., vol. 9, p. 64, 1833  
(type locality, Manila).

Caranx (Longirostrum) mertensii  
Wakiya, Ann. Carnegie Mus., vol.  
15, p. 204, July 1, 1924 (Ryukyu).



Pseudosciaena albida Bleeker, Nederl.

Tijdschr. Dierk., vol. 1, 1863, p. 145

(Amoy); vol. 2, 1865, p. 56 (Amoy).

Sciaena albida Day, Fishes of India,

pt. 2, 1876, p. 188, pl. 44, figs. 4-6 (Calcutta);

Fishes of India<sup>Fishes</sup>, vol. 2, 1887, p. 117. —

Zugmayer, Abhandl. Kon. Bayer. Akad.

Wiss., math.-physik. Klasse, vol. 26,

band 6, 1913, p. 12 (Mekran). — Gilby,

Mem. Queensland Mus., vol. 6, December

19, 1918, p. 85 (compiled). — Malpas, Ceylon

Administr. Rep., 1921, p. E8.

Johnius unee (not Bloch) Blyth, Proc.

Asiat. Soc. Bengal, vol. , 1866, p. 141

(Sitang River).

Corvina neilli Day, Fishes of Malabar,

1865, p. 54. Cochin, Malabar.

Caranx platessa Cuvier, Hist. nat.  
Poiss., vol. 9, p. 84, 1833 (type  
locality, "la mer des Indes" Péron).  
— Fowler, Mem. Bishop Mus., vol.  
11, No. 6, p. 405, 1934 (compiled).

— McCulloch, Austral. Mus. Mem.,  
No. 5, pt. 2, p. 188, Sep. 10, 1929 (reference).



258  
dark band extends from snout tip  
through eye and forms distinct  
jet black blotch at middle of  
caudal at least large as pupil.  
Fins all pale or whitish, soft  
dorsal and anal each with broad  
black basal longitudinal band,  
extending out little on each fin  
posteriorly. Iris, except as crossed  
by dark longitudinal bands pale or  
whitish.

Malaysia, Philippines, Polynesia.

Caranx (Longirostrum) platessa  
Wakiya, Ann. Carnegie Mus., vol.  
15, p. 203, July 1, 1924 (Nagasaki).



behind broad band of smaller ones.  
No molars. Scales very small, about  
116. Cheeks scaly. Opercles, except  
upper angle, naked. Vertical fin  
finely scaled. Dorsal spines 14.

Coromandel, Pondichery).  $\frac{1}{m}$  Günther, Cat.  
Fishes Brit. Mus., vol. 2, 1860, p. 304 (China).  
 $\frac{1}{m}$  Day, Fishes of Malabar, 1865, p. 54.  $\frac{1}{m}$   
Castelnau, Proc. Linn. Soc. New South Wales,  
vol. 3, 1878, p. 47 (Northern Australia).  $\frac{1}{m}$  Macleay,  
Proc. Linn. Soc. New South Wales, vol. 5, 1881,  
p. 521 (Mormon River).

Corvina olvida Elera, Cat. Fauna Filipinas,  
vol. 1, 1895, p. 502 (Luzon; Manila). (Error.)

Caranx chilensis Guichenot, Hist.  
 Chili, Gay, Zool., vol. 2, p. 25<sup>35, pl. 6, fig. 2,</sup>~~35~~,  
 1848 (type locality, "Isla de  
 Juan Fernandez") Atlas, pl. 6, fig. 2,  
 1854. — Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 439, 1860 (copied). — Delfin, Cat.  
 Peces de Chile, p. 54, 1901 (reference).  
Caranx leptolepis (not Cuvier) Günther,  
 Cat. Fish. Brit. Mus., vol. 2, p. 440,  
 1860 (part).

Caranx georgianus (not Cuvier)  
Günther, Cat. Fish. Brit. Mus., vol.  
 2, p. 440, 1860 (part).



14021. Aparri, Luzon. November 19, 1908.  
Length 68 mm.

8852. Catbalogan, Samar. April 15, 1908.  
Length 128 mm.

5965, 5973, 5974, 5975. Cavite market.  
December 1, 1908. Length 74 to 114 mm.

6000 [730]. Cavite market. February 21,  
1908. Length 218 mm.

22539. Dagupan, Luzon. March 18, 1908.  
Length 105 to 108 mm. 2 examples.

6545. Line fisherman off Daet. June 15,  
1909. Length 168 mm.

<sup>18446,</sup>  
18444, 18445, 18447. Manila market.

May 4, 1908. Length 144 to 163 mm.

9266. Manila market. July 10, 1908. Length 194 mm.

1 example. Manila market. December 12-18,  
1907. Length 124 mm.

Caranx delicatissimus (Döderlein)  
Steindachner and Döderlein,  
 Denks. Akad. Wiss. Wien, math.  
 naturw. Kl., vol. 49, p. 184,  
 1884 (1885) (type locality,

— Jordan and Snyder, Annot. Zool.  
 Japon., vol. 3, p. 67, 1901 (reference).  
 — Snyder, Proc. U. S. Nat. Mus.,  
 vol. 42, 1912, p. 411 (Misaki).

Caranx (Longirostrum) delicatissimus  
Wakiya, Ann. Carnegie Mus., vol. 15,  
 p. 203, pl. 28, fig. 3, July 1, 1924  
 (Kii; Miyako; Tokyo Bay).



depth  $2\frac{1}{4}$  to  $3\frac{1}{3}$ ; head  $3\frac{1}{3}$ . Snout  
4 in head; eye 4 to 7, 1 to  $1\frac{1}{4}$  in snout;  
maxillary reaches  $\frac{2}{3}$  or to hind eye edge,  
length  $2\frac{1}{2}$  to  $2\frac{2}{3}$  in head; jaws equal  
or upper slightly longer; mouth cleft  
slightly oblique; 3 pores across knob below  
mandibular symphysis behind base of  
which large open pore and 2 more on side  
of either ramus; short barbel between  
central pore and anterior lateral one  
and very minute one at posterior pore;  
teeth in villiform bands, outer upper row  
and lower inner row enlarged; interorbital  
low; preopercle edge serrate in young,  
entire with age.

Scales 55 to 60 along above lateral  
line, <sup>to caudal base</sup> 50 to 55 along below; 7 above, 18

Caranx cheilio Snyder, Bull. U. S. Fish Comm., vol. 22, p. 524, pl. 8, fig. 14, 1902 (1904) (type locality, Honolulu). — Jordan and Evermann, Bull. U. S. Fish Comm., vol. 23, pt. 1, p. 196, 1903 (1905) (copied).

Caranx cheilio Regan, Proc. Zool. Soc. London, 1913, p. 370 (Easter Island). — Fuentes, Bolet. Mus. nac. Chile, vol. 7, no. 1, p. 300, pl. 16, 1914 (Easter Island). — Nichols, Amer. Mus. Novit. N. Y., no. 50, p. 2, October 24, 1922 (Honolulu). —



154  
72688 U.S.N.M. Java. Bryant  
and Palmer. Length 68 mm.

1 example. A.N.S.P. Bombay, India.  
Bombay Natural History Society. Length  
182 mm.

47595 A.N.S.P. Philippines. Commercial  
Museum of Philadelphia.

47650 A.N.S.P. Philippines. Commercial  
Museum of Philadelphia. Length 178 mm.

As Argyrozonus goldmani.

— Fowler and Ball, Bull. Bishop  
Mus., no. 26, p. 12, 1925 (Laysan).

— Fowler, Mem. Bishop Mus., vol. 10,  
p. 146, ~~1928~~ pl. 12 C, 1928 (Honolulu;  
Laysan; type of Carangus cheilio);  
vol. 11, no. 5, p. 326, 1931 (Honolulu).



5025, 5026. Tacloban market. July  
25, 1909. Length 175 to 193 mm.

5078. Sandakan, Borneo. March 1,  
1908. Length 190 mm.

11834. Sandakan. March 2, 1908.  
Length 160 mm.

11461, 11462. Kowloon market. September  
8, 1908. Length 123 to 128 mm.

Buka Island, Celebes. November 20, 1909.  
A 1024. ^ Length 153 mm.

32719 U.S.N.M. Indian Archipelago.  
Royal Museum Leiden. Length 170 mm.

56100 U.S.N.M. San Fabian, Philippines.  
Bureau of Fisheries (3709). Length 190 mm.  
As Johnius belengeri.

72687 U.S.N.M. Java. Bryant and  
Palmer. Length 155? mm.

Depth  $2\frac{1}{2}$  to  $3\frac{1}{8}$ ; head  $2\frac{3}{5}$  to  $3\frac{1}{3}$ ,  
width 2 to  $2\frac{1}{4}$ . Snout  $2\frac{1}{5}$  to  $2\frac{3}{5}$   
in head; eye  $5\frac{3}{5}$  to  $6\frac{1}{2}$ ,  $2\frac{1}{6}$  to  $3\frac{2}{3}$   
in snout,  $1\frac{1}{2}$  to 3. in interorbital,  
adipose lids not developed;  
maxillary reaches  $\frac{3}{4}$  to  $\frac{4}{5}$  to eye,  
expansion  $1\frac{1}{3}$  to  $1\frac{4}{5}$  in eye,  
length  $2\frac{2}{3}$  to  $3\frac{1}{5}$  in head from  
snout tip; lips fleshy or  
coriaceous with age; <sup>preorbital depth to maxillary end  $1\frac{2}{5}$  to  $1\frac{3}{5}$  eye diameter</sup> interorbital  
 $3\frac{2}{3}$  to 4 <sup>in head,</sup> elevated convexly,  
with median keel. Gill rakers  
<sup>8 to</sup> 12 + <sup>17 to</sup> 23, lanceolate, subequal  
with gill filaments or  $1\frac{1}{4}$  in  
eye.

Scales 50 + 24 to 38 in  
lateral line, straight section  
 $1\frac{1}{5}$  in long arch; 16 to 19 scales  
above middle of arch to soft



dorsal origin, 25 to 29 below.

Breast entirely scaly.

D. VIII - I, 24, I or I, 25, I,  
third spine  $2\frac{1}{10}$  to  $3\frac{1}{5}$  in head,  
first branched ray  $2\frac{7}{8}$  to  $3\frac{2}{3}$ ,  
last ray semi-detached; A.  
II - I, 20, I to I, 22, I, first  
branched ray  $2\frac{3}{4}$  to  $3\frac{1}{2}$ , last  
ray semi-detached; caudal  
 $1\frac{1}{6}$  to  $1\frac{2}{5}$ , deeply forked; ventral  
 $2\frac{1}{10}$  to  $2\frac{4}{5}$ , rays I, 5; pectoral  
rays II, 19, fin 3 to  $3\frac{1}{8}$  in fish  
without caudal.

Back drab or gray, below  
and on sides silvery white.  
Small round black spot,  
well contrasted, on upper hind  
edge of opercle, about size of  
pupil. Dorsals and caudal brownish,  
other fins pale to whitish.

East Indies, Philippines, Siam,  
China, Riu Kiu, Japan, Hawaii,  
Easter Island, Juan Fernandez.  
Also in the tropical Atlantic.

Both the large Philippine examples  
listed below show 17 or 18 scutes  
in the straight section of the  
lateral line, compared with  
21 in the Easter Island material.  
All have a dark opercular spot  
and with black pectoral axillary  
blotch visible at origin of  
pectoral fin, obscure or faint  
in Easter Island example.

Both above have a few irregular  
large dark brown to blackish  
rounded spots, chiefly on back  
and tail, not evident in the  
Easter Island specimen. All  
show the thick, coriaceous,



papillate lips, lower jaw little shorter or even with upper, breast densely and closely scaled, and last dorsal and anal rays each with terminal half free. Moreover the Philippine specimens both have longer pectoral, which  $2\frac{1}{3}$  to  $2\frac{2}{3}$  in fish without caudal or  $1\frac{1}{4}$  to  $1\frac{2}{5}$  times head.

9372. Cebu market. August  
28, 1909. Length 380 mm.

8453. Maribojoc, Bohol.  
March 26, 1909. Length 630 mm.



is shown with greatly shorter barbels and two dark longitudinal bands, parallel, along upper side of body.

The present species approaches <sup>Pseud</sup>~~Speneus~~ luteus in most every way, except it is figured by Bleeker with four blue horizontal bands on the head.

50676 U.S.N.M. Hilo, Hawaii. Bureau of Fisheries (no. 3994). Length 196 mm.

52688 U.S.N.M. Hawaiian Islands. Bureau of Fisheries (no. 03936). Length 207 mm.

55517 U.S.N.M. Hawaiian Islands. Bureau of Fisheries (no. 03910). Length 110 mm. As Mulloidex rampensis.

28114 A.N.S.P. Honolulu. Bur. Fisher. (03999). Length 182 mm.

U. S. N. M., No. 22592. Japan.  
Japanese Government. Length 310 mm.  
As Caranx flavoceruleus.

U. S. N. M., No. 65445. Easter Island.  
Albatross Collection. Length 500 mm.

U. S. N. M., No. 92258. Hawaiian  
Islands. P. V. Galtsoff. Length 530 mm.  
Eye  $6\frac{1}{3}$  in head; maxillary reaches  $2\frac{3}{4}$   
in head. Straight section of lateral  
line  $1\frac{2}{3}$  in arch. As Caranx cheilio.



Mc Culloch, Fishes New South Wales,  
ed. 2, 1927, p. 55.

Depth 3; head 4. Snout  $3\frac{7}{8}$  to  $4\frac{1}{2}$   
in head from snout tip; eye  $4\frac{2}{5}$ ,  $1\frac{1}{5}$  to  
 $1\frac{1}{4}$  in snout; maxillary reaches half  
way in eye, <sup>expansion</sup> 2 to  $2\frac{1}{5}$  in eye, length  
 $2\frac{1}{3}$  to  $2\frac{2}{5}$  in head from snout tip;  
interorbital convex.

Scales 53 in lateral line to caudal  
base and 9 more on latter; <sup>(5 show on figure)</sup> 6<sub>1</sub> above,  
12 below, 6 rows on cheeks. Scales with  
more or less complete fine circuli;  
37 minute apical marginal prints show  
on figure, with imperfect submarginal  
row.

Caranx bucculentus Alleyne  
and Macleay

Caranx bucculentus Alleyne and  
Macleay, Proc. Linn. Soc. New South  
Wales, vol. 1, pt. 4, p. 326, pl. 11, fig. 1,  
March 1877 (type locality, Cape  
Grenville, Queensland). — McCulloch, Mem. Queensland Mus.,  
vol. 8, pt. 1, p. 67, Jan. 30, 1924  
(diagnosis in key); Austral.  
Mus. Mem., no. 5, pt. 2, p. 186, Sep. 10,  
1929 (reference).



266  
median band with blackish area  
below last dorsal rays. Fins all  
pale, dusky brown. Basal longitudinal  
band on soft dorsal and anal, extends  
well out on last ray posteriorly.

Red Sea, Arabia, East Africa, Zanzibar,  
Mozambique, Natal, Maldives, India,  
Nicobars, East Indies, Philippines, Riu  
Kiu, China, Japan, Melanesia, Micronesia,  
Polynesia.

Depth  $2\frac{1}{2}$ ; head 3. Snout 3 in head; eye  $3\frac{1}{5}$ ,  $1\frac{1}{10}$  in snout,  $\frac{1}{3}$  eye diameter from upper profile; maxillary reaches  $\frac{1}{2}$  in eye, expansion  $2\frac{1}{4}$  in eye, length 2 in head; front end of mouth cleft well below level of eye; interorbital greater than eye, slopes up high behind.

Arch of lateral line short, high, reaches only far as middle of first dorsal, nearly 4 in straight section, armed with strong, large scutes (33 shown in course on figure besides 6 continued forward?).

D. VIII - I, 18 (I, 20 in soft fin on figure), second spine  $2\frac{7}{8}$  in head, first branched ray  $1\frac{2}{5}$ , A. II - I, 16 (I, 22 in soft fin on



1624

figure) first branched ray  $1\frac{1}{2}$ ;  
caudal  $1\frac{1}{5}$ , forked; least depth  
of caudal peduncle  $5\frac{3}{4}$ ;  
ventral 2; pectoral  $2\frac{3}{4}$  in  
fish without caudal.

Color silvery, back darker.  
Dorsal and caudal tipped  
with black. Indistinct dark  
opercular spot. Black axillary  
spot (shown on figure little less  
than pupil at pectoral origin).  
Length 250 mm.

(Alleyne and Macleay).  
Queensland, North Australia.

Genus Uraspis Bleeker

Uraspis Bleeker, Nat. Tijds. Ned.  
 Indië, vol. 8, p. 417, 1855. (Type  
~~Leioglossus~~  
Uraspis carangoides Bleeker,  
 monotypic.)

Leioglossus Bleeker, Nat. Tijds. Ned.  
 Indië, vol. 1, pp. 343, 352, 1850. (Type  
Leioglossus carangoides Bleeker,  
 monotypic.)

Leucoglossa Jordan, Tanaka, Snyder,  
 Proc. California Acad. Sci., <sup>ser. 4,</sup> vol. 16,  
 p. 660, Nov. 14, 1927. (Type.



24047. Malampaya Island, east of  
Zamboanga. September 8, 1909.  
Length 85 mm. Type, no. 68399  
U. S. N. M.

23374. Sipadan Island, off  
Borneo. September 28, 1909.  
Length 70 mm.

Body oblong, compressed. Head moderate. Snout obtuse, rather large. Eye small, little advanced from middle in head length.

Mouth oblique, moderate, front end of mouth cleft level with middle of eye. Maxillary reaches eye. Teeth acute, curved, above biserial, uniserial behind below, or uniserial or biserial in both jaws. Palate and tongue toothless.

Interorbital high. Scales minute, absent from breast though naked area not reaching pectorals. Arch of lateral line about equals straight section, which beveled its entire length. Front dorsal and anal rays not elevated or but little larger than other rays. Caudal well forked. Pectoral subequal with head. Ventral equals or shorter than head.



1627

Characterized by its low dorsal and anal rays, dark coloration and the milk white tongue in great contrast with the rest of the black mouth.

Analysis of Species

a.<sup>1</sup> Uraspis. Scutes with denticles directed backward.

b.<sup>1</sup> Pectoral  $2 \frac{3}{4}$  in fish without caudal. helvolus.

b.<sup>2</sup> Pectoral  $2 \frac{4}{5}$  in fish without caudal. pectoralis.

a.<sup>2</sup> Leucoglossa. Scutes with denticles directed forward. uraspis.

Uraspis helvolus (<sup>Schneider</sup>~~Forster~~)

1628

Scomber helvolus (Forster) Schneider,  
Syst. Ichth. Bloch, p. 38, 1801  
(type locality, Ascension Island,  
Atlantic Ocean [= Pacific]). —  
Lichtenstein, Descript. Animal.  
Forster, p. 415, 1844.



30 predorsal forward to occiput and 18 to 20 more forward to snout end; 13 principal rows across cheek. Scales with 9 to 12 basal radiating striae; 22 to 30 apical denticles, with 6 to 11 transverse series of basal elements; circuli fine.

D. X or VII, I, 29, I or 30, I, third spine 2 to 2 <sup>1</sup>/<sub>8</sub> in head, first ray 3 to 3 <sup>1</sup>/<sub>5</sub>; A. II, 7, I, second spine 2 <sup>1</sup>/<sub>5</sub> to 2 <sup>1</sup>/<sub>4</sub> in head or 1 <sup>1</sup>/<sub>8</sub> to 1 <sup>1</sup>/<sub>4</sub> in postocular, first ray 1 <sup>3</sup>/<sub>4</sub> to 1 <sup>4</sup>/<sub>5</sub> in head; caudal 1 <sup>1</sup>/<sub>5</sub> to 1 <sup>1</sup>/<sub>4</sub>, cuneate; least depth of caudal peduncle 3 <sup>1</sup>/<sub>4</sub> to 4; pectoral 1 <sup>1</sup>/<sub>2</sub> to 1 <sup>2</sup>/<sub>3</sub>; ventral 1 <sup>1</sup>/<sub>2</sub> to 1 <sup>3</sup>/<sub>5</sub>.

Brown, below paler or whitish, with silvery white reflections. On back

1629

Caranx helvolus Günther, Cat. Fish.

Brit. Mus., vol. 2, p. 443, 1862 (type).

Klunzinger, Verh. zool. bot. Gesell. Wien, vol. 21, p. 457, 1871 (Red Sea).

Fowler, Bull. Bishop Mus.,

no. 22, p. 25, 1925 (Honolulu);

Proc. Acad. Nat. Sci. Philadelphia,

vol. 79, 1927, p. 270 (Philippines);

New. Bishop Mus., vol. 10, p. 147,

pl. 13 B, 1928 (Honolulu).

Cuvier, Hist. Nat. Poiss., vol. 9, p. 104, 1833  
(copied).

Caranx (Hypocaranx) helvolus Klunzinger,  
Fische Roth. Meer., vol. 1, p. 96, 1884.

Caranx (Eraspis) helvolus Wakuija, Ann.  
Carnegie Mus., vol. 15, p. 206, pl. 28, fig.  
4, 1924 (Iwajima; Formosa).



1527

young to  $1\frac{1}{3}$  with age; maxillary reaches  $\frac{3}{4}$  in eye in young to  $\frac{1}{2}$  with age, expansion  $1\frac{4}{5}$  to 2 in eye, length  $2\frac{1}{4}$  to  $2\frac{1}{3}$  in head; mouth partly inferior, 5 pores at chin; rather narrow bands of villiform teeth in jaws, outer upper row and inner lower row enlarged, former slightly canine like anteriorly; interorbital  $3\frac{7}{8}$  to  $4\frac{1}{10}$ , broadly convex; preopercle edge finely denticulate, denticles at angle largest. Gill rakers 8 + 13, lanceolate, equal gill filaments or  $\frac{1}{2}$  eye; 2 upper and 4 lower gill rakers rudimentary.

Scales 47 to 53 in lateral line to caudal base and 15 to 23 more out over caudal fin; 9 or 10 above, 10 to 12 below;

Carangus helvolus Snyder, Bull.  
U. S. Fish Comm., vol. 22, p. 524,  
1902 (1904) (Honolulu). — Jordan  
and Evermann, Bull. U. S. Fish  
Comm., vol. 23, pt. 1, p. 196, pl. 32,  
1903 (1905) (Honolulu).

Alepes helvolus Ashida, Philippine  
Journ. Sci., vol. 26, no. 3, p. 385,  
March 1925 (Tokyo, Formosa)



hibea albiflora Jordan and Hubbs,  
mem. Carnegie Mus., vol. 10, no. 2,  
June 27, 1925, p. 243 (Fukuoka).

Pagrus macrocephalus Basilevsky,  
how. mem. Soc. Nat. Moscow, vol. 10,  
1855, p. 222, pl. 3, fig. 1. Gulf of Pechili  
and Oriental Sea, Peking.

Sciaena ten-lo Basilevsky, <sup>Nov. mem. Soc. Nat. Moscow</sup> sp. cit., p.  
220, pl. 1, fig. 3. Gulf of Pechili, Peking.

Cowina macrophthalmus Bleeker,  
Nederl. Tijdschr. Dierk., vol. 4, 1874,  
p. 117 (China).

Depth  $3\frac{1}{2}$  to  $3\frac{2}{5}$ ; head  $4\frac{7}{8}$  to  $3\frac{1}{2}$ ,  
width 2 to  $2\frac{1}{4}$ . Snout  $3\frac{7}{8}$  to 4 in head;  
eye  $3\frac{2}{3}$  to  $5\frac{2}{5}$ , equals snout in young  
to  $1\frac{1}{2}$  with age, equals interorbital in

Caranx micropterus Rüppell, Neue  
Wirbelth. Fische, p. 46, pl. 13, fig. 1.  
1835 (type locality, Djedda, Red  
Sea).

Caranx (Eraspis) micropterus Wabsija,  
Ann. Carnegie Mus., vol. 15, p. 206, pl.  
30, fig. 2, 1924 (Kii; Ryubye).



229

Amia fasciata (Shaw)

Mullus fasciatus Shaw, Journ. Voy. New South Wales, White, 1790, p. 268, pl., fig. 1. New South Wales. — Walbaum, Cited Pisc., vol. 3, 1792, p. 621 (on Shaw).

Apogon fasciatus ~~Shaw and Gaimard, Voy. Uranie, Zool., pts. 8-9, Jan. 29 - May 26, 1825, p. 344 (Uranie)~~. Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 241. (Australia, Port Jackson). — Steindachner, Sitzb. <sup>ber.</sup> Akad. Wiss. Wien, vol. 53, pt. 1, 1866, p. 427 (Port Jackson). — Alleyne and Macleay, Proc. Linn. Soc. New South Wales, vol. 1, 1876, p. 267 (Cape Grenville and Darnley Island, Queensland). — Castelnau, Proc. Linn. Soc. New South Wales, vol. 3, 1878, p. (350) 370 (Port Jackson). — Klunzinger, Sitzb. <sup>ber.</sup> Akad. Wiss. Wien, vol. 80, pt. 1, 1879 (1880), p. 344 (Port Darwin). — Macleay, Proc. Linn. Soc. New South Wales, vol. 5,

Leucoglossa candens (Jordan,  
Evermann, Waksija) Jordan,  
Evermann, Tanaka, Proc. Cal.  
Acad. Sci., ser. 4, vol. 16, p. 660,  
November 14, 1927 (on Snyder's  
example; Honolulu specimen  
268 mm).

Leucoglossa albilinguis (Jordan,  
Evermann, Waksija) Jordan,  
Evermann, Tanaka, Proc. Cal.  
Acad. Sci., ser. 4, vol. 16, p. 661, pl.  
22, fig. 2, November 14, 1927 (type  
locality, Honolulu).



Can 129

~~Johnius~~ albiflora (Richardson)

Corvina? albiflora Richardson, Ichth.

China Japan, 1846, p. 226; Canton.

Sciaena albiflora Günther, Ann. Mag.

Nat. Hist. London, <sup>ser. 4</sup> vol. 12., 1873, p. 378

(Chefoo).  $\frac{1}{27}$  Regan, Ann. Mag. Nat. Hist.

London, vol. 15, series 7, 1905, p. 20

(Inland Sea of Japan).  $\frac{1}{27}$  Jordan and

Thompson, Proc. U.S. Nat. Mus., vol. 39,

1911, p. 247, fig. 2 (Port Arthur, Manchuria).

$\frac{1}{27}$  Jordan and Metz, Mem. Carnegie Mus.,

vol. 6, no. 1, June 1913, p. 36, fig. 27 (Port

Arthur, Fusan, Chinnampo, Korea). ✓

Sciaena (Corvina) albiflora Steindachner,

Denkschr. Akad. Wiss. Wien, math.-

naturw. Klasse, vol. 59, pt. 1, 1892, p. 361

(Shanghai).

1633

Depth  $2\frac{2}{5}$ ; head  $3\frac{1}{5}$ , width 2.

Snout 3 in head from snout tip; eye  $3\frac{1}{2}$ ,  $1\frac{1}{5}$  in snout,  $1\frac{1}{4}$  in interorbital; maxillary reaches  $\frac{1}{5}$  in eye, expansion 2, length  $2\frac{1}{4}$  in head; interorbital  $2\frac{7}{8}$ , elevated convexly, with median keel. Gill rakers  $2+15$ , lanceolate.

Scales  $67+37$  in lateral line, straight section  $1\frac{1}{5}$  in arch.

D. V, I, 27, I, second spine  $5\frac{1}{2}$  in total head length, first ray  $2\frac{1}{8}$ ; A. II - I, 21, I, first ray  $2\frac{1}{4}$ ; caudal forked; least depth of caudal peduncle  $5\frac{3}{4}$ ; ventral  $2\frac{3}{5}$ ; pectoral  $2\frac{3}{4}$  in fish without caudal.

Gray above, whitish below, with blue, green and violet



tints. Tongue and inside mouth  
contrasted conspicuously white.  
Fins brown.

Red Sea, Philippines, Formosa,  
Red Sea, Japan, Polynesia, Hawaii.

1635  
A. N. S. P., one example. Philippines.  
1923. Rev. Joseph Clements. Length  
220? mm.